Ruth Welch, State Director BLM Colorado State Office 2850 Youngfield Street Lakewood, Colorado 80215-7093 ***Hand delivered***

RE: Formal Protest of June 8, 2017 Oil and Gas Lease Sale

Dear Director Welch:

Please accept and fully consider this timely protest of BLM Colorado's June 2017 oil and gas lease sale. This protest challenges BLM's Environmental Assessment, DOI-BLM-CO-NO5-2016-0099-EA, and the agency's decision to proceed with the sale of new leases located in the Kremmling and White River Field Offices. We specifically protest parcels:

COC78361 (6560)	COC78345 (7872)	COC78288 (7821)
COC78365 (6571)	COC78346 (7873)	COC78289 (7822)
COC78360 (7096)	COC78367 (7890)	COC78290 (7823)
COC78347 (7097)	COC78362 (7891)	COC78291 (7824)
COC78348 (7098)	COC78363 (7892)	COC78292 (7825)
COC78349 (7099)	COC78368 (7893)	COC78293 (7826)
COC78356 (7105)	COC78369 (7902)	COC78294 (7827)
COC78357 (7107)	COC78370 (7904)	COC78300 (7835)
COC78358 (7108)	COC78315 (7814)	COC78301 (7836)
COC78350 (7109)	COC78314 (7816)	COC78302 (7838)
COC78351 (7110)	COC78284 (7817)	COC78303 (7839)
COC78352 (7111)	COC78285 (7818)	COC78304 (7840)
COC78359 (7124)	COC78286 (7819)	COC78295 (7852)
COC78282 (7866)	COC78287 (7820)	COC78296 (7857)

This protest is submitted on behalf of The Wilderness Society, Conservation Colorado and Rocky Mountain Wild. The undersigned groups previously submitted comments in September and December of 2016. In earlier comments we raised issues related to the appropriate level of analysis for these new proposed lease parcels, as well as issues related to specific values that must be considered and protected, and concerns about the adequacy of existing programmatic plans.

PROTESTING PARTIES

The Wilderness Society ("TWS") has a long-standing interest in the management of Bureau of Land Management lands in Colorado and engages frequently in the decision-making processes for land use planning and project proposals that could potentially affect wilderness-quality lands and other important natural resources managed by the BLM in Colorado. TWS members and staff enjoy a myriad of recreation opportunities on BLM-managed public lands, including hiking, biking, nature-viewing, photography, and the quiet contemplation in the solitude offered by

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wild places. Founded in 1935, our mission is to protect wilderness and inspire Americans to care for our wild places.

Conservation Colorado is a grassroots organization working to protect our air, land, water, and people. We have a long and successful history in Colorado of collaborating on the key environmental issues of the day, and establishing strategic partnerships to find conservation success at the state and federal levels. Our organization has a long history of working on public lands issues across Colorado, but specifically on BLM lands on Colorado's western slope. Among our thousands of members are those that live, work, recreate and enjoy the BLM lands of the Kremmling and White River Field Offices for a wide variety of activities and have a vested interest in the management of those lands.

Rocky Mountain Wild ("RMW") is a non-profit environmental organization based in Denver, Colorado, that works to conserve and recover the native species and ecosystems of the Greater Southern Rockies using the best available science. RMW has a well-established history of participation in BLM planning and management activities. RMW works to save endangered species and preserve landscapes and critical ecosystems. It achieves these goals by working with biologists and landowners, utilizing GIS technology to promote understanding of complex land use issues, and monitoring government agencies whose actions affect endangered and threatened species. RMW's members and supporters include approximately 1,200 outdoor enthusiasts, wildlife conservationists, scientists, and concerned citizens across the country.

RMW's staff and members visit, recreate on, and use lands on or near the parcels proposed for leasing. Our staff and members enjoy various activities on or near land proposed for leasing, including viewing and studying rare and imperiled wildlife and native ecosystems, hiking, camping, taking photographs, and experiencing solitude. Our staff and members plan to return to the subject lands in the future to engage in these activities, and to observe and monitor rare and imperiled species and native ecosystems. We are collectively committed to ensuring that federal agencies properly manage rare and imperiled species and native ecosystems. Members and professional staff of RMW are conducting research and advocacy to protect the populations and habitat of rare and imperiled species discussed herein. Our members and staff value the important role that areas of high conservation value should play in safeguarding rare and imperiled species and natural communities, and other unique resources on public land.

STATEMENT OF REASONS FOR PROTEST

1. BLM has failed to consider a reasonable range of alternatives.

NEPA requires that BLM analyze in detail "all reasonable alternatives." 40 C.F.R. § 1502.14(a). The range of alternatives is the heart of a NEPA document because "[w]ithout substantive, comparative environmental impact information regarding other possible courses of action, the ability of [a NEPA analysis] to inform agency deliberation and facilitate public involvement would be greatly degraded." New Mexico v. BLM, 565 F.3d 683, 708 (10th Cir. 2009). That analysis must cover a reasonable range of alternatives, so that an agency can make an informed choice between the spectrum of reasonable options. The Environmental Assessment (EA) for the June lease sale fails to meet this requirement. It only analyzes two alternatives:

- The No Action alternative, which would defer all lease parcels; and
- Leasing "all 106 nominated parcels available for leasing" under the governing resource management plans (RMPs), totaling 101,031 acres (the Lease Everything Alternative).

EA at 11. The EA also lists a "Preferred Alternative," but it does not substantively differ from the Lease Everything Alternative. The Preferred Alternative would drop 215 acres from the 101,000-plus acre sale (0.2% of the total). EA at 11-12. But it does so because additional analysis revealed that those 215 acres are located within one mile of Greater Sage-Grouse leks and thus are closed to leasing under the Northwest Colorado Greater Sage-Grouse Approved Resource Management Plan Amendment of 2015. EA at 4, 12. Thus, the Preferred Alternative — like the Lease Everything Alternative — would offer every nominated parcel that is legally available for leasing. The "Preferred Alternative" is really nothing more than a minor correction to the Lease Everything Alternative.

An EA offering a choice between leasing every parcel nominated, and leasing nothing at all, does not present a reasonable range of alternatives. The "all or nothing" approach taken by the EA sharply contrasts with other recent NEPA documents prepared by BLM for comparable leasing decisions in Colorado. For example, in 2016 BLM addressed 65 existing leases on the White River National Forest — a decision which covered 80,380 acres, an area considerably smaller than the 101,000 acres here — with an EIS that analyzed six alternatives in detail. BLM, Previously Issued Oil and Gas Leases in the White River National Forest, Final Environmental Impact Statement at 1-5, 2-1 to 2-2 (Aug. 2016) (WRNF FEIS). Similarly, BLM's 2016 supplemental EIS for the Roan Plateau Planning Area covered only 73,800 acres, but considered nine separate alternatives (including those from the 2006 EIS). BLM, Roan Plateau Planning Area Record of Decision and Approved Resource Management Plan Amendment at ES-1, 1-11 to 1-13 (Nov. 2016) (2016 Roan Plateau ROD). These examples illustrate how grossly inadequate the two alternatives are in the EA for this lease sale.

BLM must consider reasonable alternatives that fall between the two extremes. In particular, it should analyze in detail an alternative that would not lease the parcels in Grand County, which total approximately 27,500 acres. Failing to analyze such a middle-ground option would violate NEPA. See TWS v. Wisely, 524 F. Supp. 2d 1285, 1312 (D. Colo. 2007) (BLM violated NEPA by failing to consider "middle-ground compromise between the absolutism of the outright leasing and no action alternatives"); Muckleshoot Indian Tribe v. US Forest Serv., 177 F.3d 800, 813 (9th Cir. 1999) (NEPA analysis failed to consider reasonable range of alternatives where it "considered only a no action alternative along with two virtually identical alternatives").

Eliminating the Grand County parcels is plainly a reasonable alternative. BLM expresses doubt about whether these will ever be developed. See, e.g., EA at 63 (none of parcels are in "high potential" areas for mineral development). If so, and BLM expects these leases will never produce, there is no reason to offer them – especially given that the agency will be offering more than 70,000 acres in other parts of Colorado at the June lease sale. If the parcels are not

¹ According to Colorado Oil and Gas Conservation Commission records, there is currently no oil and gas production, and no pending or approved applications for permits to drill, in Grand County. See http://cogcc.state.co.us/data.html#/cogis (production data by county); http://cogcc.state.co.us/permits.html#/permits (pending or recently-approved applications); see also EA at 64 (no producing or shut-in wells in Grand County).

developed, leasing them offers little benefit because they will generate no royalties, and no significant additional employment or investment in the area. Moreover, the bonus payments and rentals from such leases will likely be minimal. There is simply no legal requirement or other reason to offer these leases if BLM does not expect them to be developed.

On the other hand, the EA provides no meaningful analysis of what the impacts on these parcels will be if the leases do get developed. For a variety of different resources, the EA states that it cannot predict the impacts from development until drilling permits are requested. This is incorrect, as discussed below. But BLM's position also illustrates why these parcels should be deferred. BLM has not done the analysis to determine what impacts are likely under the stipulations proposed for these leases, and whether those stipulations will be adequate to prevent significant adverse impacts to water supplies, public health and other resources. Nor can BLM conclude that the potential economic benefits of leasing them outweigh the environmental and economic harms to the local community and other resources. But by leasing these lands now, BLM will make an irreversible commitment of resources limiting the government's options if and when companies seek to drill for oil and gas in Grand County. If leases are issued now, it becomes difficult or impossible for BLM to change course later.

BLM should wait until development begins on private or state lands in Grand County before deciding to offer these parcels. If significant development starts occurring on nearby lands, BLM is likely to receive much higher bonus bids for these parcels than it will now. Moreover, if development begins on non-federal lands in Grand County, it will generate additional information about the impacts and development patterns that can be expected on public lands. That information will allow the agency to make a much better-informed decision on whether the economic and environmental costs of oil and gas leasing are outweighed by the purported benefits.

Similarly, BLM should evaluate a reasonable alternative to defer the lease parcels that overlap with inventoried lands with wilderness characteristics (LWC) in the White River Field Office. As we stated in previous comments on this lease sale, the 2015 White River Oil and Gas RMP Amendment (WRFO Oil and Gas RMPA)made decisions on management tiers based primarily on existing oil and gas leases and development potential. (See, for example, discussion in the Proposed RMPA at 2-34—35.) This is an inappropriate basis for allocating lands for conservation and making long-term management decisions, decisions which should consider all resources and potential future uses, not just oil and gas development. As new RMPs are getting finalized, a trend is emerging in which LWC units are being excluded from protective management simply because of existing undeveloped oil and gas leases. However, as those leases expire (in at least one instance even before the signing of the Final RMP/Record of Decision) these LWC units are no longer encumbered by the very oil and gas leases used by BLM as rationale for their decision. This creates a scenario where BLM has made management decisions for an area because of an undeveloped valid existing right that is now neither valid nor existing.

Many leases have expired in Tier 2 and Tier 3 LWC, leaving many of those LWC units largely or completely free of leases. For example, BLM's only cited rationale for managing the Raven Ridge LWC unit as a Tier 2 LWC rather than a Tier 1 LWC was the fact that at the time of analysis Raven Ridge did not have 5,000 contiguous acres of unleased BLM lands within its boundaries. However, because of lease expirations which occurred in January 2015—prior to the signing of the ROD for the WRFO Oil and Gas RMPA—this unit is now almost entirely unleased, with only

175 acres along the far northern border encumbered with existing leases. Raven Ridge now has over 5,600 acres of contiguous unleased lands and no longer contains the valid existing rights cited by BLM in its decision not to manage the unit as a Tier 1 LWC. Similar situations have occurred in the Willow Creek South, Coal Oil Gulch, Upper Coal Oil Rim, and Texas Mountain LWC units.

BLM should not offer parcels for lease in the June 2017 lease sale that overlap with LWC units that were categorized into Tier 2 and 3 in the WRFO Oil and Gas RMPA because of existing leases that no longer exist today. The basis for BLM's decision in the RMPA has changed. BLM should preserve the unleased status of these LWC units until the agency can consider appropriate management actions and allowable uses and restrictions across all resources and potential uses, not just oil and gas development, such as in the upcoming White River RMP revision.

II. BLM has failed to take a hard look at reasonably-foreseeable development on these leases.

The EA also fails to provide any meaningful analysis of the reasonably foreseeable impacts to a variety of resources from drilling on the protested parcels. Instead, BLM takes the position that: (a) the issuance of the leases is just a paper transaction with no direct impacts, and that (b) drilling on those leases is an "indirect" effect that is impossible to analyze at the leasing stage. The EA may identify the category of impact and what stipulations or legal requirements may apply, but takes the position that assessment of impacts on these lease parcels will be deferred until applications for drilling permits are filed and approved. For example, the EA takes this approach regarding impacts to:

- Groundwater and aquifers, EA at 54-55, 77-80;
- Surface water, <u>id.</u> at 62, 93-94;
- Lands with wilderness character, id. at 188-89;
- Oil and gas development, id. at 67-69;
- Soils and erosion, id. at 72-74;
- Migratory birds, id. at 99-101;
- Special status wildlife species, <u>id.</u> at 121-132;
- Special status plant species, id. at 136-37;
- Wetlands and riparian areas, id. at 141-42;
- Fish and aquatic wildlife, id. at 152-54; and
- Socioeconomics, id. at 195-96.

The EA's generic discussion of types of impacts fails to provide many facts necessary for BLM to make an informed decision about leasing individual parcels. For example, the EA does not consider the location and extent of potential drilling on these parcels. See id. at 17 ("BLM cannot forecast the number of wells that would ultimately be developed on any particular parcel"). As a result, the EA never assesses whether and to what extent stipulations will actually be effective in protecting resources on particular parcels, which resources on each parcel will suffer particular damage if an accident occurs, or where additional protective measures may be

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warranted on particular parcels.² Most of the EA's discussion of impacts, in fact, could apply to any lease sale (and appears to involve generic text that BLM cuts-and-pastes into many NEPA documents).

This does not satisfy NEPA. Merely describing the "the category of impacts anticipated from oil and gas development" isn't sufficient when it is reasonable for BLM to do more. See New Mexico, 565 F.3d at 707 (emphasis original). "NEPA does not permit an agency to remain oblivious to differing environmental impacts, or hide these from the public, simply because it understands the general type of impact likely to occur. Such a state of affairs would be anathema to NEPA's 'twin aims' of informed agency decision-making and public access to information." Id.

NEPA also does not allow BLM to defer the missing analysis until the APD stage on the theory that providing more information would be speculative at this point. "All environmental analyses required by NEPA must be conducted at "the earliest possible time." Id.; 40 C.F.R. § 1501.2. This is especially important here, because issuance of the leases represents an irreversible commitment of resources that will limit BLM's ability to preclude drilling activities in the future. As the Tenth Circuit has held, "assessment of all reasonably foreseeable impacts must occur at the earliest practicable point, and must take place before an irretrievable commitment of resources is made." New Mexico, 565 F.3d at 718 (quotation omitted).

The impacts from development on the lease parcels are "reasonably foreseeable." An "effect is reasonably foreseeable if it is sufficiently likely to occur that a person of ordinary prudence would take it into account in reaching a decision." <u>Colo. Env. Coal. v. Salazar</u>, 877 F. Supp. 2d 1233, 1251 (D. Colo. 2013) (quotation omitted). The fact that no APDs have been filed yet does not excuse BLM from making reasonable predictions about where that development is likely to occur: "reasonable forecasting is implicit in NEPA, and we must reject any attempt by agencies to shirk their responsibilities under NEPA by labeling any and all discussion of future environmental effects as 'crystal ball inquiry." <u>Salazar</u>, 877 F. Supp. 2d at 1251 (quoting <u>Dubois v. U.S. Dept. of Agriculture, 102 F.3d 1273, 1286 (1st Cir.1996)</u>). The test is whether an impact can or "cannot be described at the time the EIS is drafted with sufficient specificity to make its consideration useful to a reasonable decision-maker." <u>DuBois</u>, 102 F.3d at 1286.

It is entirely feasible for BLM to develop a useful forecast about potential development on these lease parcels. For example, many of the parcels in the White River and Little Snake field offices are adjacent to areas that already are being extensively developed. See EA lease parcel maps 2-9; see also, EA at 20-21 (relying on reasonably foreseeable development analysis to predict that most future development in the White River Field office "will be development (field extension, infill) wells with success rates of at least 95%"). For the lease parcels in the Kremmling Field Office, BLM can look to the McCallum field near the town of Walden, where dozens of federal

² Nor was this type of site-specific analysis done in connection with the Kremmling RMP (2015). That programmatic EIS presented a broad regional analysis, deferring any site-specific analysis until subsequent steps in the leasing and development process. Similarly, the impact analysis for lands with wilderness characteristics in the White River Oil and Gas RMP Amendment (2015) did not constitute the "hard look" required at the leasing stage through site-specific analysis.

https://eplanning.blm.gov/epl-frontoffice/projects/nepa/70241/92197/111092/PDF Maps Comment May2017.pdf.

production wells have been drilled. EA at 22; <u>see</u> map of McCallum field wellbores, attached as Exhibit 1.4

BLM can readily develop a Geographic Information System (GIS) forecast of reasonably foreseeable drilling on the proposed lease parcels by overlaying existing development patterns from nearby federal and private lands on the proposed lease parcels, and accounting for NSO and other stipulations on those leases. See New Mexico, 565 F.3d at 718-19 (analysis of site-specific impacts required at leasing stage where the parcels were near area with extensive existing development). That forecast of the number of future wells and their potential locations would allow BLM to take a hard look at a variety of impacts such as habitat fragmentation, impairment of lands with wilderness character, risks to groundwater and surface water, and other resources.

In fact, BLM has done exactly this kind of analysis elsewhere. See, e.g., Roan FEIS at 2-7, attached as Exhibit 2 (plotting potential well locations on Roan Plateau to predict potential oil and gas recovery and visual impacts); New Mexico, 565 F.3d at 707-08 (rejecting argument that analyzing impacts of habitat fragmentation was not feasible where agency had actually done such an analysis). There is no reason BLM cannot do the same here, and it is required by NEPA.⁵

III. The EA's failure to analyze potential groundwater impacts in the Kremmling Field Office violates NEPA.

The EA's lack of analysis is especially problematic with regard to groundwater impacts on the Kremmling parcels. The EA acknowledges that the "geology and groundwater hydrology of [this

⁴ A review of the McCallum field shows that numerous long horizontal wells are being permitted and drilled there. Those long horizontals make it much less likely that the NSO stipulations attached to many Grand County leases will prevent those leases from being developed, contrary to BLM's assumption. See EA at 69 (predicting "difficulty for the lease holder to effectively and efficiently develop and recover the leased oil and gas resources"). Moreover, BLM's stipulations are only "recommended" for split estate lands with private surface; the surface owner is not required to follow them. EA at 64-65. Further, the NSO stipulations contain very broad provisions allowing BLM to grant waivers, exceptions or modifications that will allow companies to conduct surface activities despite the NSO provision. Id.; see, e.g., EA at pdf pp. 798-810 (Kremmling NSO stipulations). All of these factors make it arbitrary and capricious for BLM to rely on NSO stipulations to prevent all impacts to different resources, or to defer analysis of those impacts.

⁵ Moreover, BLM's claim that it lacks information about future development contravenes Council on Environmental Quality regulations. Those regulations require that where "the incomplete information relevant to reasonably foreseeable significant adverse impacts is essential to a reasoned choice among alternatives and the overall costs of obtaining it are not exorbitant, the agency shall include the information" in the NEPA analysis. 40 C.F.R. § 1502.22. Even where information cannot be obtained, the agency must include: "a summary of existing credible scientific evidence which is relevant to evaluating the reasonably foreseeable significant adverse impacts on the human environment, and [] the agency's evaluation of such impacts based upon theoretical approaches or research methods generally accepted in the scientific community." Id. Here, information about impacts from drilling on the proposed leases is essential to a reasoned choice among alternatives – those are the primary effects from the leasing decision and issuing the leases represents an irreversible commitment. And as discussed above, the costs of obtaining that information are not "exorbitant." But the EA does not provide the analysis required by Section 1502.22.

area] is very complex," with faulting, natural fractures, and shifting plates. EA at 53-54. An accident caused by faulty well cementing and casing, or surface spills, could result in significant and permanent damage.

For example, no fewer than <u>99 domestic water wells and known springs</u> are located on the Kremmling lease parcels. EA at 75. Development on these leases would pose a significant and direct threat to drinking water in the area.

Moreover, the renowned geothermal Hot Sulphur Springs are located only 0.8 miles from one of the lease parcels. EA at 64. BLM estimates that "the areal extent of the Hot Sulphur Springs thermal system could encompass 1.35 square miles" in a geologic area with "numerous faults and fractures," <u>id.</u> at 63-64, that could transmit leaked petroleum, produced water, and fracking fluids from a drilling accident.

The EA, in fact, acknowledges generically that development and well construction problems could cause impacts to groundwater, EA at 55, 73, 77, but never discusses the extent of such impacts, where they present the greatest risk, or how they could be addressed or remediated. Despite these obvious risks, and the lack of analysis in the EA, BLM concludes that "None of the environmental effects associated with offering the proposed lease parcels for sale, as discussed in detail in the EA, were determined to be significant." FONSI at 1. This finding is arbitrary and capricious, as discussed below. See New Mexico, 565 F.3d at 714-15 (finding similar conclusion arbitrary and capricious where no evidence supported BLM conclusion that impacts to aquifer would be minimal).

Instead of grappling with the potential impacts of its leasing decision, the EA relies on its regulations to protect groundwater during permitting.⁶ See, e.g., EA at 69 ("During the APD process the drilling plan and completion process would be reviewed for the potential impacts that could occur to [Hot Sulphur Springs] and apply the necessary mitigations to prevent adverse impacts"); id. at 55, 78-80 (discussing Onshore Order No. 2 and Colorado regulations).

This was arbitrary and capricious because existing regulations are not completely effective in preventing spills and other accidents from oil and gas development. For example, COGCC records show that in Jackson County alone, 22 spills were reported in just the past year – an average of almost two per month. COGCC Spill/Release Reports for Jackson County, attached as Exhibit 3. Some of these spills involved thousands of gallons of produced water or other fluids, which can reach aquifers in areas with shallow groundwater or complex hydrogeology. <u>Id.</u> at Document Numbers 401082436, 401083990, 401139346, 401144529, 401185628. <u>See New Mexico</u>, 565 F.3d at 715 (BLM cannot rely on regulations to assume that impacts will be minimal where the record showed that regulations did not prevent regular spills and other accidents).

BLM's reliance on its existing regulations was also arbitrary and capricious because the agency has determined that those regulations are outdated and insufficient. For example, Onshore Order No. 2 is nearly 30 years old, 53 Fed. Reg. No. 223 (Nov. 18, 1988), and BLM's existing Code of Federal Regulations operational rules date to the early 1980s. 47 Fed. Reg. 47754 (Oct. 27,

⁶ The EA also states that buffers of up to 1,000 feet will be applied between surface disturbing activities and water wells, springs or seeps. EA at 76. But surface buffers may not protect those water resources if companies are drilling long horizontal wells on those leases.

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1982); 48 Fed. Reg. 36583 (Aug. 12, 1983); 80 Fed. Reg.16127, 16128-31 (Mar. 26, 2015). In promulgating updated rules in 2015, BLM determined that the "increased complexity [of modern oil and gas wells] requires additional regulatory effort and oversight" to protect groundwater and other resources. 80 Fed. Reg. at 16128. For example, the 2015 regulations for the first time would require prior BLM approval for all hydraulic fracturing operations, to ensure that no pathways would allow gas or fluids to escape the underground zone being fractured and contaminate aquifers or cause other accidents. See 80 Fed. Reg. at 16147, 16153. This approval process would require a review of the subsurface area being drilled to ensure that well bores don't intersect each other, that well casing is sufficient to protect usable waters, and that an adequate confining layer exists between the oil and gas producing formation and any usable aquifers. See id. at 16153. That review is especially important in areas like the Kremmling Field Office that have very complex subsurface geology.

BLM's updated 2015 regulations, however, have been set aside by a Wyoming district court. State of Wyoming v. Dep't of Interior, 2016 WL 3509415, * 12 (June 21, 2016). While that district court ruling is on appeal, BLM recently announced its intent to revoke the updated regulations, which would return the agency to reliance on its outdated and inadequate 30-year old standards. See Federal Appellants' Motion To Continue Argument and Hold Case in Abeyance Pending Administrative Action at 2-3, State of Wyoming v. Zinke, No. 16-8068, 16-8069 (10th Cir. Mar. 15, 2017) (BLM Mot. for Abeyance). BLM cannot assume that its outdated regulations will prevent impacts to aquifers, given its determination that they are insufficient for modern drilling operations.

Further, it is currently unclear whether even BLM's <u>existing</u> regulations, including Onshore Order. No 2, are enforceable. The Wyoming district court decision appears to hold broadly that BLM lacks the legal authority to adopt regulations for protection of groundwater. <u>See State of Wyoming</u>, 2016 WL 3509415 at ** 4-9. The new presidential administration has asked the Tenth Circuit Court of Appeals to abate any review of that ruling — thus extending the uncertainty over BLM's authority to prevent groundwater contamination when these leases are developed. <u>See</u> BLM Mot. for Abeyance at 3. Given BLM's apparent acquiescence in a ruling that may invalidate its existing regulations, it is arbitrary and capricious for the agency to rely on those regulations to prevent significant impacts to groundwater. The agency needs to take a hard look at this issue before issuing leases.

IV. BLM's FONSI is arbitrary and capricious

Given the EA's lack of analysis, it would be arbitrary and capricious for BLM to make a finding of no significant impact (FONSI) for this lease sale. As discussed above, the EA fails to analyze the reasonably foreseeable impacts of developing these lease parcels on groundwater and numerous other resources. Having taken the position that it does not know what these impacts will be, BLM cannot also assert that they will not be significant, or that there are no "unknown risks." FONSI at 2. Such a conclusion is arbitrary and capricious, and only highlights the need for BLM to do more analysis before offering these parcels. See Davis v. Mineta, 302 F.3d 1104, 1123-25 (10th Cir. 2002) (reversing FONSI that was arbitrary and capricious).

The FONSI also ignores the irreversible commitment of resources made by this decision. Its finding that "a decision to lease would not limit later resource management decisions for areas open to development proposals" is wrong as a legal matter. Similarly, the FONSI's statement

that "Areas with unique geographic characteristics" are not present is contrary to the record, which shows that thousands of acres of lands with wilderness character, and 21 areas of critical environmental concern, would be leased.

In addition, the magnitude of this lease sale – covering more than 101,000 acres (roughly 158 square miles) – makes it highly implausible to conclude that it will not have a significant impact on the environment. Notably, BLM has prepared EISs for leasing decisions involving much smaller areas. See WRNF FEIS at 1-5, 2-1 to 2-2 (80,380 acres); 2016 Roan Plateau ROD at ES-1 (73,800 acres). BLM offers no explanation for why these parcels are so different.

V. Leasing the Drowsy Water area is inconsistent with the direction set forth in the Kremmling RMP.

Parcels 7822, 7823, 7824, 7825, 7826, 7835 and 7852 overlap with Drowsy Water, an LWC unit that BLM inventoried and found possesses wilderness characteristics in the Kremmling RMP revision. While BLM decided to not manage Drowsy Water to protect its wilderness characteristics, the RMP states that this area will instead be managed for "forest health, public health and safety, and non-motorized and primitive backcountry recreation opportunities":

Given the current forest health of the areas (i.e. MPB infestation), their proximity to residential areas (i.e. WUI status), they will instead be managed for forest health, public health and safety, and non-motorized and primitive backcountry recreation opportunities. Although adverse impacts from other resource uses and actions may occur within these areas without the specific protective measures in Appendix H, the wilderness characteristics in these areas will continue to receive indirect protections from management as prescribed in Appendix N for their primitive backcountry settings (Drowsy Water and Strawberry, Zone 1), non-motorized travel (all three areas in total), and non-mechanical travel (Drowsy Water and Strawberry, Zone 1).

Kremmling Proposed RMP at 4-588. Indeed, the Drowsy Water LWC unit is included in the Headwaters ERMA, which was designated in the Kremmling RMP for non-motorized recreation. Kremmling Approved RMP at L-64. Primitive backcountry recreation opportunities would be severely impacted by oil and gas development. Managing for forest health and public health and safety is also inconsistent with issuing oil and gas leases. Therefore, BLM should not offer the referenced parcels in the June 2017 lease sale because issuing those leases would be inconsistent with the management direction for this area set forth in the Kremmling RMP.

Additionally, our analysis of potential LWC units in the Kremmling Field Office, which we submitted in our protest of the Kremmling RMP, identified significant potential boundary delineation errors in the Drowsy Water unit. BLM Manual 6310 states that, "[t]he boundary [for a wilderness characteristics inventory unit] is usually based on the presence of wilderness inventory roads" but can also be based on changes in property ownership or developed rights-of-way. Wilderness Inventory Roads are defined as those roads that are "improved and maintained by mechanical means to insure relatively regular and continuous use. A way maintained solely by the passage of vehicles does not constitute a road." BLM Manual 6310 at .07 (Glossary). Some of the boundaries for the Drowsy Water unit do not appear to meet the above definition of a wilderness inventory road or other qualifying feature for boundary delineation purposes and therefore do not comply with BLM's guidance.

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Because we submitted that information with our protest of the Kremmling RMP and BLM has not yet considered it (to our knowledge), BLM should also update its LWC inventory for the Drowsy Water unit to ensure it is consistent with current agency policy as set forth in BLM Manual 6310. We submitted this comment with our scoping comments for this lease sale, but BLM did not address it in the EA or otherwise.

Conclusion: BLM has failed to take a hard look at the potential impacts of selling the proposed parcels, and specifically has not undertaken the required site-specific analysis of individual parcels. BLM should defer the protested parcels from the June 2017 oil and gas lease sale for the reasons articulated above.

Thank you,

Nada Culver, Senior Counsel and Director

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LIST OF EXHIBITS

- 1. Map of McCallum Field Wellbores
- 2. Roan Plateau Proposed Resource Management Plan Amendment and Final Environmental Impact Statement (2006), pp. 2-5—2-7.
- 3. Colorado Oil and Gas Conservation Commission Spill/Release Reports for Jackson County

Ruth Welch, State Director BLM Colorado State Office 2850 Youngfield Street Lakewood, Colorado 80215-7093 ***Hand delivered***

RE: Formal Protest of June 8, 2017 Oil and Gas Lease Sale

Dear Director Welch:

Please accept and fully consider this timely protest of BLM Colorado's June 2017 oil and gas lease sale. This protest challenges BLM's Environmental Assessment, DOI-BLM-CO-NO5-2016-0099-EA, and the agency's decision to proceed with the sale of new leases located in the Kremmling and White River Field Offices. We specifically protest parcels:

COC78361 (6560)	COC78345 (7872)	COC78288 (7821)
COC78365 (6571)	COC78346 (7873)	COC78289 (7822)
COC78360 (7096)	COC78367 (7890)	COC78290 (7823)
COC78347 (7097)	COC78362 (7891)	COC78291 (7824)
COC78348 (7098)	COC78363 (7892)	COC78292 (7825)
COC78349 (7099)	COC78368 (7893)	COC78293 (7826)
COC78356 (7105)	COC78369 (7902)	COC78294 (7827)
COC78357 (7107)	COC78370 (7904)	COC78300 (7835)
COC78358 (7108)	COC78315 (7814)	COC78301 (7836)
COC78350 (7109)	COC78314 (7816)	COC78302 (7838)
COC78351 (7110)	COC78284 (7817)	COC78303 (7839)
COC78352 (7111)	COC78285 (7818)	COC78304 (7840)
COC78359 (7124)	COC78286 (7819)	COC78295 (7852)
COC78282 (7866)	COC78287 (7820)	COC78296 (7857)

This protest is submitted on behalf of The Wilderness Society, Conservation Colorado and Rocky Mountain Wild. The undersigned groups previously submitted comments in September and December of 2016. In earlier comments we raised issues related to the appropriate level of analysis for these new proposed lease parcels, as well as issues related to specific values that must be considered and protected, and concerns about the adequacy of existing programmatic plans.

PROTESTING PARTIES

The Wilderness Society ("TWS") has a long-standing interest in the management of Bureau of Land Management lands in Colorado and engages frequently in the decision-making processes for land use planning and project proposals that could potentially affect wilderness-quality lands and other important natural resources managed by the BLM in Colorado. TWS members and staff enjoy a myriad of recreation opportunities on BLM-managed public lands, including hiking, biking, nature-viewing, photography, and the quiet contemplation in the solitude offered by

BUREAU OF LAND HOHT COLO STATE OFFICE DENTE wild places. Founded in 1935, our mission is to protect wilderness and inspire Americans to care for our wild places.

Conservation Colorado is a grassroots organization working to protect our air, land, water, and people. We have a long and successful history in Colorado of collaborating on the key environmental issues of the day, and establishing strategic partnerships to find conservation success at the state and federal levels. Our organization has a long history of working on public lands issues across Colorado, but specifically on BLM lands on Colorado's western slope. Among our thousands of members are those that live, work, recreate and enjoy the BLM lands of the Kremmling and White River Field Offices for a wide variety of activities and have a vested interest in the management of those lands.

Rocky Mountain Wild ("RMW") is a non-profit environmental organization based in Denver, Colorado, that works to conserve and recover the native species and ecosystems of the Greater Southern Rockies using the best available science. RMW has a well-established history of participation in BLM planning and management activities. RMW works to save endangered species and preserve landscapes and critical ecosystems. It achieves these goals by working with biologists and landowners, utilizing GIS technology to promote understanding of complex land use issues, and monitoring government agencies whose actions affect endangered and threatened species. RMW's members and supporters include approximately 1,200 outdoor enthusiasts, wildlife conservationists, scientists, and concerned citizens across the country.

RMW's staff and members visit, recreate on, and use lands on or near the parcels proposed for leasing. Our staff and members enjoy various activities on or near land proposed for leasing, including viewing and studying rare and imperiled wildlife and native ecosystems, hiking, camping, taking photographs, and experiencing solitude. Our staff and members plan to return to the subject lands in the future to engage in these activities, and to observe and monitor rare and imperiled species and native ecosystems. We are collectively committed to ensuring that federal agencies properly manage rare and imperiled species and native ecosystems. Members and professional staff of RMW are conducting research and advocacy to protect the populations and habitat of rare and imperiled species discussed herein. Our members and staff value the important role that areas of high conservation value should play in safeguarding rare and imperiled species and natural communities, and other unique resources on public land.

STATEMENT OF REASONS FOR PROTEST

BLM has failed to consider a reasonable range of alternatives.

NEPA requires that BLM analyze in detail "all reasonable alternatives." 40 C.F.R. § 1502.14(a). The range of alternatives is the heart of a NEPA document because "[w]ithout substantive, comparative environmental impact information regarding other possible courses of action, the ability of [a NEPA analysis] to inform agency deliberation and facilitate public involvement would be greatly degraded." New Mexico v. BLM, 565 F.3d 683, 708 (10th Cir. 2009). That analysis must cover a reasonable range of alternatives, so that an agency can make an informed choice between the spectrum of reasonable options. The Environmental Assessment (EA) for the June lease sale fails to meet this requirement. It only analyzes two alternatives:

- The No Action alternative, which would defer all lease parcels; and
- Leasing "all 106 nominated parcels available for leasing" under the governing resource management plans (RMPs), totaling 101,031 acres (the Lease Everything Alternative).

EA at 11. The EA also lists a "Preferred Alternative," but it does not substantively differ from the Lease Everything Alternative. The Preferred Alternative would drop 215 acres from the 101,000-plus acre sale (0.2% of the total). EA at 11-12. But it does so because additional analysis revealed that those 215 acres are located within one mile of Greater Sage-Grouse leks and thus are closed to leasing under the Northwest Colorado Greater Sage-Grouse Approved Resource Management Plan Amendment of 2015. EA at 4, 12. Thus, the Preferred Alternative — like the Lease Everything Alternative — would offer every nominated parcel that is legally available for leasing. The "Preferred Alternative" is really nothing more than a minor correction to the Lease Everything Alternative.

An EA offering a choice between leasing every parcel nominated, and leasing nothing at all, does not present a reasonable range of alternatives. The "all or nothing" approach taken by the EA sharply contrasts with other recent NEPA documents prepared by BLM for comparable leasing decisions in Colorado. For example, in 2016 BLM addressed 65 existing leases on the White River National Forest — a decision which covered 80,380 acres, an area considerably smaller than the 101,000 acres here — with an EIS that analyzed six alternatives in detail. BLM, Previously Issued Oil and Gas Leases in the White River National Forest, Final Environmental Impact Statement at 1-5, 2-1 to 2-2 (Aug. 2016) (WRNF FEIS). Similarly, BLM's 2016 supplemental EIS for the Roan Plateau Planning Area covered only 73,800 acres, but considered nine separate alternatives (including those from the 2006 EIS). BLM, Roan Plateau Planning Area Record of Decision and Approved Resource Management Plan Amendment at ES-1, 1-11 to 1-13 (Nov. 2016) (2016 Roan Plateau ROD). These examples illustrate how grossly inadequate the two alternatives are in the EA for this lease sale.

BLM must consider reasonable alternatives that fall between the two extremes. In particular, should analyze in detail an alternative that would not lease the parcels in Grand County, which total approximately 27,500 acres. Failing to analyze such a middle-ground option would violate NEPA. See TWS v. Wisely, 524 F. Supp. 2d 1285, 1312 (D. Colo. 2007) (BLM violated NEPA by failing to consider "middle-ground compromise between the absolutism of the outright leasing and no action alternatives"); Muckleshoot Indian Tribe v. US Forest Serv., 177 F.3d 800, 813 (9th Cir. 1999) (NEPA analysis failed to consider reasonable range of alternatives where it "considered only a no action alternative along with two virtually identical alternatives").

Eliminating the Grand County parcels is plainly a reasonable alternative. BLM expresses doubt about whether these will ever be developed. See, e.g., EA at 63 (none of parcels are in "high potential" areas for mineral development). If so, and BLM expects these leases will never produce, there is no reason to offer them — especially given that the agency will be offering more than 70,000 acres in other parts of Colorado at the June lease sale. If the parcels are not

¹ According to Colorado Oil and Gas Conservation Commission records, there is currently no oil and gas production, and no pending or approved applications for permits to drill, in Grand County. See http://cogcc.state.co.us/data.html#/cogis (production data by county); http://cogcc.state.co.us/permits.html#/permits (pending or recently-approved applications); see also EA at 64 (no producing or shut-in wells in Grand County).

developed, leasing them offers little benefit because they will generate no royalties, and no significant additional employment or investment in the area. Moreover, the bonus payments and rentals from such leases will likely be minimal. There is simply no legal requirement or other reason to offer these leases if BLM does not expect them to be developed.

On the other hand, the EA provides no meaningful analysis of what the impacts on these parcels will be if the leases do get developed. For a variety of different resources, the EA states that it cannot predict the impacts from development until drilling permits are requested. This is incorrect, as discussed below. But BLM's position also illustrates why these parcels should be deferred. BLM has not done the analysis to determine what impacts are likely under the stipulations proposed for these leases, and whether those stipulations will be adequate to prevent significant adverse impacts to water supplies, public health and other resources. Nor can BLM conclude that the potential economic benefits of leasing them outweigh the environmental and economic harms to the local community and other resources. But by leasing these lands now, BLM will make an irreversible commitment of resources limiting the government's options if and when companies seek to drill for oil and gas in Grand County. If leases are issued now, it becomes difficult or impossible for BLM to change course later.

BLM should wait until development begins on private or state lands in Grand County before deciding to offer these parcels. If significant development starts occurring on nearby lands, BLM is likely to receive much higher bonus bids for these parcels than it will now. Moreover, if development begins on non-federal lands in Grand County, it will generate additional information about the impacts and development patterns that can be expected on public lands. That information will allow the agency to make a much better-informed decision on whether the economic and environmental costs of oil and gas leasing are outweighed by the purported benefits.

Similarly, BLM should evaluate a reasonable alternative to defer the lease parcels that overlap with inventoried lands with wilderness characteristics (LWC) in the White River Field Office. As we stated in previous comments on this lease sale, the 2015 White River Oil and Gas RMP Amendment (WRFO Oil and Gas RMPA)made decisions on management tiers based primarily on existing oil and gas leases and development potential. (See, for example, discussion in the Proposed RMPA at 2-34—35.) This is an inappropriate basis for allocating lands for conservation and making long-term management decisions, decisions which should consider all resources and potential future uses, not just oil and gas development. As new RMPs are getting finalized, a trend is emerging in which LWC units are being excluded from protective management simply because of existing undeveloped oil and gas leases. However, as those leases expire (in at least one instance even before the signing of the Final RMP/Record of Decision) these LWC units are no longer encumbered by the very oil and gas leases used by BLM as rationale for their decision. This creates a scenario where BLM has made management decisions for an area because of an undeveloped valid existing right that is now neither valid nor existing.

Many leases have expired in Tier 2 and Tier 3 LWC, leaving many of those LWC units largely or completely free of leases. For example, BLM's only cited rationale for managing the Raven Ridge LWC unit as a Tier 2 LWC rather than a Tier 1 LWC was the fact that at the time of analysis Raven Ridge did not have 5,000 contiguous acres of unleased BLM lands within its boundaries. However, because of lease expirations which occurred in January 2015—prior to the signing of the ROD for the WRFO Oil and Gas RMPA—this unit is now almost entirely unleased, with only

175 acres along the far northern border encumbered with existing leases. Raven Ridge now has over 5,600 acres of contiguous unleased lands and no longer contains the valid existing rights cited by BLM in its decision not to manage the unit as a Tier 1 LWC. Similar situations have occurred in the Willow Creek South, Coal Oil Gulch, Upper Coal Oil Rim, and Texas Mountain LWC units.

BLM should not offer parcels for lease in the June 2017 lease sale that overlap with LWC units that were categorized into Tier 2 and 3 in the WRFO Oil and Gas RMPA because of existing leases that no longer exist today. The basis for BLM's decision in the RMPA has changed. BLM should preserve the unleased status of these LWC units until the agency can consider appropriate management actions and allowable uses and restrictions across all resources and potential uses, not just oil and gas development, such as in the upcoming White River RMP revision.

II. BLM has failed to take a hard look at reasonably-foreseeable development on these leases.

The EA also fails to provide any meaningful analysis of the reasonably foreseeable impacts to a variety of resources from drilling on the protested parcels. Instead, BLM takes the position that: (a) the issuance of the leases is just a paper transaction with no direct impacts, and that (b) drilling on those leases is an "indirect" effect that is impossible to analyze at the leasing stage. The EA may identify the category of impact and what stipulations or legal requirements may apply, but takes the position that assessment of impacts on these lease parcels will be deferred until applications for drilling permits are filed and approved. For example, the EA takes this approach regarding impacts to:

- Groundwater and aquifers, EA at 54-55, 77-80;
- Surface water, <u>id.</u> at 62, 93-94;
- Lands with wilderness character, id. at 188-89;
- Oil and gas development, id. at 67-69;
- Soils and erosion, id. at 72-74;
- Migratory birds, <u>id.</u> at 99-101;
- Special status wildlife species, <u>id.</u> at 121-132;
- Special status plant species, id. at 136-37;
- Wetlands and riparian areas, id. at 141-42;
- Fish and aquatic wildlife, id. at 152-54; and
- Socioeconomics, id. at 195-96.

The EA's generic discussion of types of impacts fails to provide many facts necessary for BLM to make an informed decision about leasing individual parcels. For example, the EA does not consider the location and extent of potential drilling on these parcels. See id. at 17 ("BLM cannot forecast the number of wells that would ultimately be developed on any particular parcel"). As a result, the EA never assesses whether and to what extent stipulations will actually be effective in protecting resources on particular parcels, which resources on each parcel will suffer particular damage if an accident occurs, or where additional protective measures may be

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warranted on particular parcels.² Most of the EA's discussion of impacts, in fact, could apply to any lease sale (and appears to involve generic text that BLM cuts-and-pastes into many NEPA documents).

This does not satisfy NEPA. Merely describing the "the *category* of impacts anticipated from oil and gas development" isn't sufficient when it is reasonable for BLM to do more. <u>See New Mexico</u>, 565 F.3d at 707 (emphasis original). "NEPA does not permit an agency to remain oblivious to differing environmental impacts, or hide these from the public, simply because it understands the general type of impact likely to occur. Such a state of affairs would be anathema to NEPA's 'twin aims' of informed agency decision-making and public access to information." <u>Id.</u>

NEPA also does not allow BLM to defer the missing analysis until the APD stage on the theory that providing more information would be speculative at this point. "All environmental analyses required by NEPA must be conducted at "the earliest possible time." Id.; 40 C.F.R. § 1501.2. This is especially important here, because issuance of the leases represents an irreversible commitment of resources that will limit BLM's ability to preclude drilling activities in the future. As the Tenth Circuit has held, "assessment of all reasonably foreseeable impacts must occur at the earliest practicable point, and must take place before an irretrievable commitment of resources is made." New Mexico, 565 F.3d at 718 (quotation omitted).

The impacts from development on the lease parcels are "reasonably foreseeable." An "effect is reasonably foreseeable if it is sufficiently likely to occur that a person of ordinary prudence would take it into account in reaching a decision." <u>Colo. Env. Coal. v. Salazar</u>, 877 F. Supp. 2d 1233, 1251 (D. Colo. 2013) (quotation omitted). The fact that no APDs have been filed yet does not excuse BLM from making reasonable predictions about where that development is likely to occur: "reasonable forecasting is implicit in NEPA, and we must reject any attempt by agencies to shirk their responsibilities under NEPA by labeling any and all discussion of future environmental effects as 'crystal ball inquiry.'" <u>Salazar</u>, 877 F. Supp. 2d at 1251 (quoting <u>Dubois v. U.S. Dept. of Agriculture, 102 F.3d 1273, 1286 (1st Cir.1996)</u>). The test is whether an impact can or "cannot be described at the time the EIS is drafted with sufficient specificity to make its consideration useful to a reasonable decision-maker." <u>DuBois</u>, 102 F.3d at 1286.

It is entirely feasible for BLM to develop a useful forecast about potential development on these lease parcels. For example, many of the parcels in the White River and Little Snake field offices are adjacent to areas that already are being extensively developed. See EA lease parcel maps 2-9; see also, EA at 20-21 (relying on reasonably foreseeable development analysis to predict that most future development in the White River Field office "will be development (field extension, infill) wells with success rates of at least 95%"). For the lease parcels in the Kremmling Field Office. BLM can look to the McCallum field near the town of Walden, where dozens of federal

² Nor was this type of site-specific analysis done in connection with the Kremmling RMP (2015). That programmatic EIS presented a broad regional analysis, deferring any site-specific analysis until subsequent steps in the leasing and development process. Similarly, the impact analysis for lands with wilderness characteristics in the White River Oil and Gas RMP Amendment (2015) did not constitute the "hard look" required at the leasing stage through site-specific analysis.

https://eplanning.blm.gov/epl-frontoffice/projects/nepa/70241/92197/111092/PDF Maps Comment May2017.pdf.

production wells have been drilled. EA at 22; see map of McCallum field wellbores, attached as Exhibit 1.4

BLM can readily develop a Geographic Information System (GIS) forecast of reasonably foreseeable drilling on the proposed lease parcels by overlaying existing development patterns from nearby federal and private lands on the proposed lease parcels, and accounting for NSO and other stipulations on those leases. See New Mexico, 565 F.3d at 718-19 (analysis of site-specific impacts required at leasing stage where the parcels were near area with extensive existing development). That forecast of the number of future wells and their potential locations would allow BLM to take a hard look at a variety of impacts such as habitat fragmentation, impairment of lands with wilderness character, risks to groundwater and surface water, and other resources.

In fact, BLM has done exactly this kind of analysis elsewhere. <u>See, e.g.</u>, Roan FEIS at 2-7, attached as Exhibit 2 (plotting potential well locations on Roan Plateau to predict potential oil and gas recovery and visual impacts); <u>New Mexico</u>, 565 F.3d at 707-08 (rejecting argument that analyzing impacts of habitat fragmentation was not feasible where agency had actually done such an analysis). There is no reason BLM cannot do the same here, and it is required by NEPA.⁵

III. The EA's failure to analyze potential groundwater impacts in the Kremmling Field Office violates NEPA.

The EA's lack of analysis is especially problematic with regard to groundwater impacts on the Kremmling parcels. The EA acknowledges that the "geology and groundwater hydrology of [this

⁴ A review of the McCallum field shows that numerous long horizontal wells are being permitted and drilled there. Those long horizontals make it much less likely that the NSO stipulations attached to many Grand County leases will prevent those leases from being developed, contrary to BLM's assumption. See EA at 69 (predicting "difficulty for the lease holder to effectively and efficiently develop and recover the leased oil and gas resources"). Moreover, BLM's stipulations are only "recommended" for split estate lands with private surface; the surface owner is not required to follow them. EA at 64-65. Further, the NSO stipulations contain very broad provisions allowing BLM to grant waivers, exceptions or modifications that will allow companies to conduct surface activities despite the NSO provision. Id.; see, e.g., EA at pdf pp. 798-810 (Kremmling NSO stipulations). All of these factors make it arbitrary and capricious for BLM to rely on NSO stipulations to prevent all impacts to different resources, or to defer analysis of those impacts.

⁵ Moreover, BLM's claim that it lacks information about future development contravenes Council on Environmental Quality regulations. Those regulations require that where "the incomplete information relevant to reasonably foreseeable significant adverse impacts is essential to a reasoned choice among alternatives and the overall costs of obtaining it are not exorbitant, the agency shall include the information" in the NEPA analysis. 40 C.F.R. § 1502.22. Even where information cannot be obtained, the agency must include: "a summary of existing credible scientific evidence which is relevant to evaluating the reasonably foreseeable significant adverse impacts on the human environment, and [] the agency's evaluation of such impacts based upon theoretical approaches or research methods generally accepted in the scientific community." Id. Here, information about impacts from drilling on the proposed leases is essential to a reasoned choice among alternatives – those are the primary effects from the leasing decision and issuing the leases represents an irreversible commitment. And as discussed above, the costs of obtaining that information are not "exorbitant." But the EA does not provide the analysis required by Section 1502.22.

area) is very complex," with faulting, natural fractures, and shifting plates. EA at 53-54. An accident caused by faulty well cementing and casing, or surface spills, could result in significant and permanent damage.

For example, no fewer than <u>99 domestic water wells and known springs</u> are located on the Kremmling lease parcels. EA at 75. Development on these leases would pose a significant and direct threat to drinking water in the area.

Moreover, the renowned geothermal Hot Sulphur Springs are located only 0.8 miles from one of the lease parcels. EA at 64. BLM estimates that "the areal extent of the Hot Sulphur Springs thermal system could encompass 1.35 square miles" in a geologic area with "numerous faults and fractures," <u>id.</u> at 63-64, that could transmit leaked petroleum, produced water, and fracking fluids from a drilling accident.

The EA, in fact, acknowledges generically that development and well construction problems could cause impacts to groundwater, EA at 55, 73, 77, but never discusses the extent of such impacts, where they present the greatest risk, or how they could be addressed or remediated. Despite these obvious risks, and the lack of analysis in the EA, BLM concludes that "None of the environmental effects associated with offering the proposed lease parcels for sale, as discussed in detail in the EA, were determined to be significant." FONSI at 1. This finding is arbitrary and capricious, as discussed below. See New Mexico, 565 F.3d at 714-15 (finding similar conclusion arbitrary and capricious where no evidence supported BLM conclusion that impacts to aquifer would be minimal).

Instead of grappling with the potential impacts of its leasing decision, the EA relies on its regulations to protect groundwater during permitting.⁶ See, e.g., EA at 69 ("During the APD process the drilling plan and completion process would be reviewed for the potential impacts that could occur to [Hot Sulphur Springs] and apply the necessary mitigations to prevent adverse impacts"); id. at 55, 78-80 (discussing Onshore Order No. 2 and Colorado regulations).

This was arbitrary and capricious because existing regulations are not completely effective in preventing spills and other accidents from oil and gas development. For example, COGCC records show that in Jackson County alone, 22 spills were reported in just the past year – an average of almost two per month. COGCC Spill/Release Reports for Jackson County, attached as Exhibit 3. Some of these spills involved thousands of gallons of produced water or other fluids, which can reach aquifers in areas with shallow groundwater or complex hydrogeology. Id. at Document Numbers 401082436, 401083990, 401139346, 401144529, 401185628. See New Mexico, 565 F.3d at 715 (BLM cannot rely on regulations to assume that impacts will be minimal where the record showed that regulations did not prevent regular spills and other accidents).

BLM's reliance on its existing regulations was also arbitrary and capricious because the agency has determined that those regulations are outdated and insufficient. For example, Onshore Order No. 2 is nearly 30 years old, 53 Fed. Reg. No. 223 (Nov. 18, 1988), and BLM's existing Code of Federal Regulations operational rules date to the early 1980s. 47 Fed. Reg. 47754 (Oct. 27,

⁶ The EA also states that buffers of up to 1,000 feet will be applied between surface disturbing activities and water wells, springs or seeps. EA at 76. But surface buffers may not protect those water resources if companies are drilling long horizontal wells on those leases.

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1982); 48 Fed. Reg. 36583 (Aug. 12, 1983); 80 Fed. Reg.16127, 16128-31 (Mar. 26, 2015). In promulgating updated rules in 2015, BLM determined that the "increased complexity [of modern oil and gas wells] requires additional regulatory effort and oversight" to protect groundwater and other resources. 80 Fed. Reg. at 16128. For example, the 2015 regulations for the first time would require prior BLM approval for all hydraulic fracturing operations, to ensure that no pathways would allow gas or fluids to escape the underground zone being fractured and contaminate aquifers or cause other accidents. See 80 Fed. Reg. at 16147, 16153. This approval process would require a review of the subsurface area being drilled to ensure that well bores don't intersect each other, that well casing is sufficient to protect usable waters, and that an adequate confining layer exists between the oil and gas producing formation and any usable aquifers. See id. at 16153. That review is especially important in areas like the Kremmling Field Office that have very complex subsurface geology.

BLM's updated 2015 regulations, however, have been set aside by a Wyoming district court. State of Wyoming v. Dep't of Interior, 2016 WL 3509415, * 12 (June 21, 2016). While that district court ruling is on appeal, BLM recently announced its intent to revoke the updated regulations, which would return the agency to reliance on its outdated and inadequate 30-year-old standards. See Federal Appellants' Motion To Continue Argument and Hold Case in Abeyance Pending Administrative Action at 2-3, State of Wyoming v. Zinke, No. 16-8068, 16-8069 (10th Cir. Mar. 15, 2017) (BLM Mot. for Abeyance). BLM cannot assume that its outdated regulations will prevent impacts to aquifers, given its determination that they are insufficient for modern drilling operations.

Further, it is currently unclear whether even BLM's existing regulations, including Onshore Order No 2, are enforceable. The Wyoming district court decision appears to hold broadly that BLM lacks the legal authority to adopt regulations for protection of groundwater. See State of Wyoming, 2016 WL 3509415 at ** 4-9. The new presidential administration has asked the Tenth Circuit Court of Appeals to abate any review of that ruling – thus extending the uncertainty over BLM's authority to prevent groundwater contamination when these leases are developed. See BLM Mot. for Abeyance at 3. Given BLM's apparent acquiescence in a ruling that may invalidate its existing regulations, it is arbitrary and capricious for the agency to rely on those regulations to prevent significant impacts to groundwater. The agency needs to take a hard look at this issue before issuing leases.

IV. BLM's FONSI is arbitrary and capricious

Given the EA's lack of analysis, it would be arbitrary and capricious for BLM to make a finding of no significant impact (FONSI) for this lease sale. As discussed above, the EA fails to analyze the reasonably foreseeable impacts of developing these lease parcels on groundwater and numerous other resources. Having taken the position that it does not know what these impacts will be, BLM cannot also assert that they will not be significant, or that there are no "unknown risks." FONSI at 2. Such a conclusion is arbitrary and capricious, and only highlights the need for BLM to do more analysis before offering these parcels. See Davis v. Mineta, 302 F.3d 1104, 1123-25 (10th Cir. 2002) (reversing FONSI that was arbitrary and capricious).

The FONSI also ignores the irreversible commitment of resources made by this decision. Its finding that "a decision to lease would not limit later resource management decisions for areas open to development proposals" is wrong as a legal matter. Similarly, the FONSI's statement

that "Areas with unique geographic characteristics" are not present is contrary to the record, which shows that thousands of acres of lands with wilderness character, and 21 areas of critical environmental concern, would be leased.

In addition, the magnitude of this lease sale – covering more than 101,000 acres (roughly 158 square miles) – makes it highly implausible to conclude that it will not have a significant impact on the environment. Notably, BLM has prepared EISs for leasing decisions involving much smaller areas. See WRNF FEIS at 1-5, 2-1 to 2-2 (80,380 acres); 2016 Roan Plateau ROD at ES-1 (73,800 acres). BLM offers no explanation for why these parcels are so different.

V. Leasing the Drowsy Water area is inconsistent with the direction set forth in the Kremmling RMP.

Parcels 7822, 7823, 7824, 7825, 7826, 7835 and 7852 overlap with Drowsy Water, an LWC unit that BLM inventoried and found possesses wilderness characteristics in the Kremmling RMP revision. While BLM decided to not manage Drowsy Water to protect its wilderness characteristics, the RMP states that this area will instead be managed for "forest health, public health and safety, and non-motorized and primitive backcountry recreation opportunities":

Given the current forest health of the areas (i.e. MPB infestation), their proximity to residential areas (i.e. WUI status), they will instead be managed for forest health, public health and safety, and non-motorized and primitive backcountry recreation opportunities. Although adverse impacts from other resource uses and actions may occur within these areas without the specific protective measures in Appendix H, the wilderness characteristics in these areas will continue to receive indirect protections from management as prescribed in Appendix N for their primitive backcountry settings (Drowsy Water and Strawberry, Zone 1), non-motorized travel (all three areas in total), and non-mechanical travel (Drowsy Water and Strawberry, Zone 1).

Kremmling Proposed RMP at 4-588. Indeed, the Drowsy Water LWC unit is included in the Headwaters ERMA, which was designated in the Kremmling RMP for non-motorized recreation. Kremmling Approved RMP at L-64. Primitive backcountry recreation opportunities would be severely impacted by oil and gas development. Managing for forest health and public health and safety is also inconsistent with issuing oil and gas leases. Therefore, BLM should not offer the referenced parcels in the June 2017 lease sale because issuing those leases would be inconsistent with the management direction for this area set forth in the Kremmling RMP.

Additionally, our analysis of potential LWC units in the Kremmling Field Office, which we submitted in our protest of the Kremmling RMP, identified significant potential boundary delineation errors in the Drowsy Water unit. BLM Manual 6310 states that, "[t]he boundary [for a wilderness characteristics inventory unit] is usually based on the presence of wilderness inventory roads" but can also be based on changes in property ownership or developed rights-of-way. Wilderness Inventory Roads are defined as those roads that are "improved and maintained by mechanical means to insure relatively regular and continuous use. A way maintained solely by the passage of vehicles does not constitute a road." BLM Manual 6310 at .07 (Glossary). Some of the boundaries for the Drowsy Water unit do not appear to meet the above definition of a wilderness inventory road or other qualifying feature for boundary delineation purposes and therefore do not comply with BLM's guidance.

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Because we submitted that information with our protest of the Kremmling RMP and BLM has not yet considered it (to our knowledge), BLM should also update its LWC inventory for the Drowsy Water unit to ensure it is consistent with current agency policy as set forth in BLM Manual 6310. We submitted this comment with our scoping comments for this lease sale, but BLM did not address it in the EA or otherwise.

Conclusion: BLM has failed to take a hard look at the potential impacts of selling the proposed parcels, and specifically has not undertaken the required site-specific analysis of individual parcels. BLM should defer the protested parcels from the June 2017 oil and gas lease sale for the reasons articulated above.

Thank you,

Nada Culver, Senior Counsel and Director

The Wilderness Society 1660 Wynkoop St. Ste. 850

Denver, CO 80202

nada culver@tws.org

303-225-4635

www.wilderness.org

Luke Schafer, West Slope Advocacy Director

Conservation Colorado

529 Yampa Ave

Craig, CO 81625

luke@conservationco.org

970-824-5241

www.conservationco.org



Matthew Sandler, Staff Attorney Rocky Mountain Wild 1536 Wynkoop St., Suite 900 Denver, CO 80202 matt@rockymountainwild.org 303-579-5162 www.rockymountainwild.org

LIST OF EXHIBITS

- 1. Map of McCallum Field Wellbores
- 2. Roan Plateau Proposed Resource Management Plan Amendment and Final Environmental Impact Statement (2006), pp. 2-5—2-7.
- 3. Colorado Oil and Gas Conservation Commission Spill/Release Reports for Jackson County

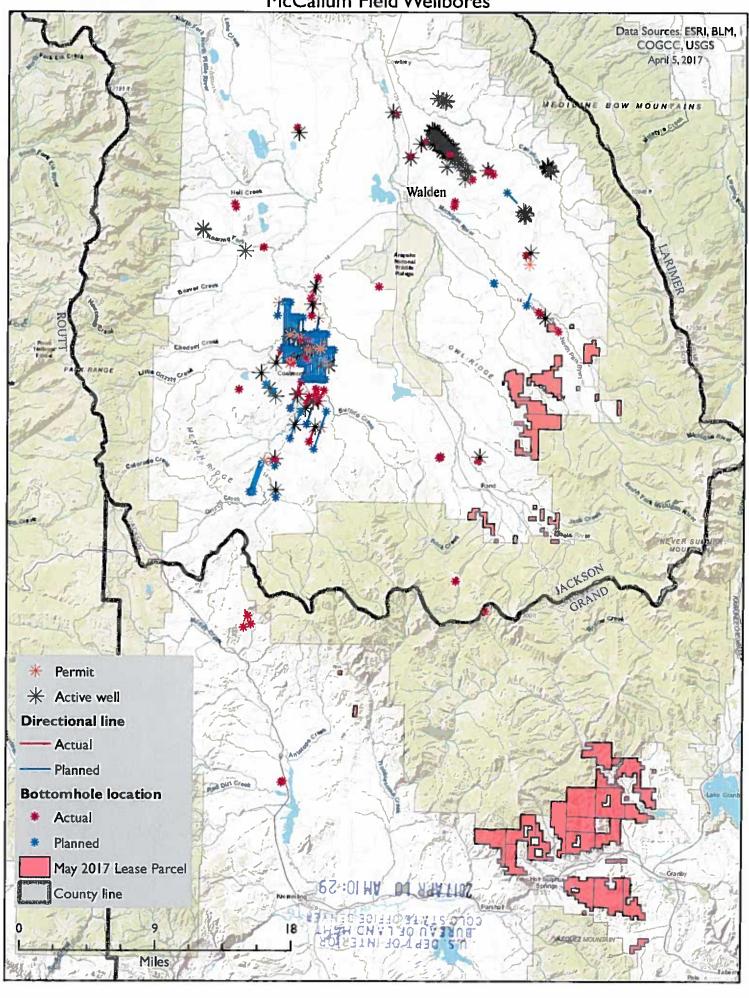
Exhibit 1

U.S. DEPT OF INTERIOR
BUREAU OF LAND HIGHT
COLO STATE OFFICE DENYER

2017 APR 10 ANIO: 20

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4			

McCallum Field Wellbores



E/			
	E.		

Exhibit 2

2017 APR 10 AH 10: 29

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FORM 19 Rev 8/13

State of Colorado Oil and Gas Conservation Commission

DN R CO

1120 Lincoln Street, Suite 801, Denver, Colorado 80203 Phone: (303) 894-2100 Fax: (303) 894-2109

JITIAL.) Spill reg

Spill report taken by NEIDEL, KRIS

Document Number:

400947893

Date Received:

12/04/2015

Spill/Release Point ID: 444247

SPILL/RELEASE REPORT (INITIAL)

This form is to be submitted by the party responsible for the oil and gas spill or release. Any spill or release which may impact waters of the State must be reported as soon as practicable; any spill over 20 bbls must be reported within 24 hours and all spills over five bbls must be reported within ten days, Submit a Site Investigation and Remediation Workplan (Form 27) when requested by the Director.

OPERATOR INFORMATON

Name of	Operator: EE3 LLC			Operator No:	10450] [Phone Numbers
Address:	4410 ARAPAHOE AVENI	UE #100				Phone:	(303) 444-8881
City: B	OULDER	State:	со	Zip: 8030	03	Mobile:	()
Contact F	Person: Ruth Hartshorn					Email:	rhartshorn@ee3llc.com
i		INITIAL SI	PILL/REL	EASE REPORT			•

Initial Report Date:	12/04/2015	Date o	Discovery	: 03	3/15/2015	_	Spill T	ype:	Historical Re	lease	
Spill/Release Point Loc	ation:										
Locationof Spill/Relea	se: QTRQTR	NENE	SEC _	32	TWP 81	<u>۱</u> F	RNG	W08	MERIDIAN	6	
Latitude: 40.628007	' Longitude	-106.39	7418							63	Com
'Municipality (if within	municipal boundar	ies):			County: J	IACKSON				0	
Reference Location:		100								APR	(2) ETI 1 2 w
Facility Type: WELL F	PAD	X ⊩Facilit	y/Location	ID No		436007				70	WO
	 	☐ No Ex	isting Facil	ity or Lo	ocation ID No	o.					31
		☐ Well A	API No. (On	lly if the	reference fa	acility is we	ell) _	05-	-	A	02
Fluid(s) Spilled/Releas	ed (please answe	Vac/No\:								$\stackrel{.}{\Box}$	G) II
· inialal abuseduresers.	on through arrest	resinoj.									(*170
Was one (1) barrel or Secondary contains any discharge from	more spilled outsic ment, including wa primary containme	e of berms Ills & floor nt until clea	regardiess nup occurs	of con			lo ust be	sufficie	ntly impervious	23	E WAR
Was one (1) barrel or Secondary contains any discharge from Were Five (5) barrels Estimated Total Spill Vo	more spilled outsionent, including wa primary containme or more spilled? lume: use same ra	e of berms ills & floor nt until clea No nges as oth	regardless nup occurs ers for valu	of cor	nstruction m	aaterial, m	ust be			to co	HOH
Was one (1) barrel or Secondary contains any discharge from Were Five (5) barrels Estimated Total Spill Vo	more spilled outsionent, including way primary containment or more spilled? lume: use same ra	e of berms ills & floor nt until clea No nges as oth me(bbl):	regardiess nup occurs ers for valu 0	of cor	nstruction m	naterial, m	ust be	Spill Vo	lume(bbl):	(2) s to co	HOH
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released into the penetrate the soi Stained gravel ar	pumphouse. Th I. Any free oil wa Id dirt from insid taken to Twin Er	32H jet pump. Whilst the pump was shutting down less than one barrel of power fluid (oil) was be pumphouse is located on a rubber mat ensuring that any fluid released was contained and did not as picked up with a vacuum truck and transferred back through the production facilities on the location. The pumphouse was transferred to a bermed area on location. Material from the bermed location has nvironmental Waste Disposal Facility. Form 27 Document #400948064 has been submitted with a
List Agencies ar	d Other Parties	s Notified:
OPERATOR CO	MMENTS:	
I hereby certify a	II statements ma	ade in this form are to the best of my knowledge true, correct, and complete.
Signed:		Print Name: Ruth Hartshorn
Title: Business	Manager	Date: 12/04/2015 Email: rhartshorn@ee3llc.com
COA Type		Description
		supplemental shall request closure of spill proceeding under Form 27 remediation workplan.
		A supplemental report, populated with information on the tab, "spill/release detail".
		Lat/Long provided are for wellhead and not for spill/discharge point.
		Lat/Long provided are for wellhead and not for spill/discharge point. Attachment Check List
Att Doc Num	<u>Name</u>	
Att Doc Num 400947893		

General Comments

User Group	Comment	Comment Date

Total: 0 comment(s)

FORM 19 Rev 8/13

State of Colorado Oil and Gas Conservation Commission

CO DNR

1120 Lincoln Street, Suite 801, Denver, Colorado 80203 Phone: (303) 894-2100 Fax: (303) 894-2109

SPILL/RELEASE REPORT (INITIAL)

This form is to be submitted by the party responsible for the oil and gas spill or release. Any spill or release which may impact waters of the State must be reported as soon as practicable; any spill over 20 bbls must be reported within 24 hours and all spills over five bbls must be reported within ten days. Submit a Site Investigation and Remediation Workplan (Form 27) when requested by the Director.

1	Document Number:
	400966846
	Date Received:
_ i	01/08/2016
	Spill report taken by
t	NEIDEL, KRIS
1	Spill/Release Point ID:
	444504

OPERATOR INFORMATON

Name of Operator: SANDRIDGE EXPLORATION & PRODUCTION LL	C Operator	No: 10598	Phone	Numbers
Address: 123 ROBERT S KERR			Phone: ()	_
City: OKLAHOMA CITY State: C	DK Zip:	73102	Mobile: (405)	590-7483
Contact Person: Clay Harwell				vell@sandridgeen
INITIAL SPIL Initial Spill/Release	L/RELEASE REPO	DRT 966846		
Initial Report Date: 01/08/2016 Date of Discover	y: 12/30/2015	Spill Type	a: Rece	ent Spill 🕥
Spill/Release Point Location:		•		2017
Locationof Spill/Release; QTRQTR SWNE SEC	32 TWP 7N	I RNG 80	OW MERIC	40.00
Latitude: 40.534837 Longitude: -106.394970				20 70 70
'Municipality (if within municipal boundaries):	County: J	ACKSON		
Reference Location:				
Facility Type: TANK BATTERY	ı ID No	3 247 5 0		豆 Bass
No Existing Fac	ility or Location ID No).		ENT CHAN CHAN CHAN CHAN CHAN CHAN CHAN CHAN
Well API No. (O	nly if the reference fa	cility is well) 05	5- -	22
Fluid(s) Spilled/Released (please answer Yes/No):			-	_
Was one (1) barrel or more spilled outside of berms or second	ary containment?	No		
Secondary containment, including walls & floor regardles any discharge from primary containment until cleanup occur		aterial, must be su	 ufficiently imperv	ious to contain
Were Five (5) barrels or more spilled? Yes				
Estimated Total Spill Volume: use same ranges as others for val	ues			
Estimated Oil Spill Volume(bbl): >0 and <1	Estimat	ed Condensate Sp	ill Volume(bbl):	0
Estimated Flow Back Fluid Spill Volume(bbl): 0	Estimated P	roduced Water Sp	ill Volume(bbl):	>=5 and <100
Estimated Other E&P Waste Spill Volume(bbl): 0	Estimate	ed Drilling Fluid Spi	ill Volume(bbl):	0
Specify:				
Land Use:				
Current Land Use: NON-CROP LAND O	ther(Specify):			
Weather Condition: 19 degrees; clear				
Surface Owner: FEE O	ther(Specify):			
Check if impacted or threatened by spill/Release (please ans	wer Yes/No to all th	at apply):		
Waters of the State Residence/Occupied Structure As defined in COGCC 100-Series Rules	Livestock 🔲	Public Byway	Surface Water	er Supply Area

Describe what is	s knov	vn about the s	pill/release event (wha	at happened -	including how it	was stopped, contained	d, and recovered):
While hot oiling Lost approx, 50 modifications.	the F bbls	W tank to tha before discov	w, a 2" nipple separat ered by Heat Waves a	ed from a han and tank was s	nmer union in the shut in. Schedule (production line causing repair to line and reviet	the PW tank to drain. w potential battery
List Agencies	and C	ther Parties		THER NOTI	FICATIONS		4
Date	Age	ncy/Party	Contact		Phone	Response	
1/6/2016	+	GCC	Kris Neidel		970-871-1963	Form 19 to be filed	
					-		
OPERATOR (OMN	MENTS:	217				
I hereby certify	all et	alements mad	e in this form are to th	ne hest of my l	rnowledge true, co	prect and complete	
Signed:	dii su	atements mad	e in this form are to th	ie best of my r	Print Name:	Tiffany Golay	
		Took	Deter	04/00/204			
Title: Sr Reg	uiator	y i ech	Date:	01/08/201	6 Email:	tgolay@sandridgee	nergy.com
COA Type			Description				110000000000000000000000000000000000000
			COGCC Staff talk	ced to Operatues further to	tor representativ	re, Clay Harwell. It ware	as agreed that we will
			Yes/No)"; should	include the s Spill Volume	pecific volume o was selected as	Spilled /Released (p of fluids spilled. Exam or=5and<100", if vo	ple: Estimated
			spill map should b			ne (visually) the spill ed information.	path. Supplemental
				ease provide		g on Form 19 should n supplemental repo	be for the point of rt (due 10 days from
			Attac	hment C	heck List		-
Att Doc Num		<u>Name</u>					
100966846		FORM 19 S	UBMITTED				
00966854		AERIAL PH	OTOGRAPH				
Total Attach: 2 F	iles						
			<u>Ge</u>	neral Con	<u>nments</u>		
Jser Group	Co	mment					Comment Date
Total: 0 comm	ent(s)						

FORM 19 Rev 8/13

State of Colorado Oil and Gas Conservation Commission

1120 Lincoln Street, Suite 801, Denver, Colorado 80203 Phone: (303) 894-2100 Fax: (303) 894-2109

400971886 Date Received: 01/15/2016

Document Number:

Spill report taken by: **NEIDEL, KRIS**

Spill/Release Point ID: 444504

SPILL/RELEASE REPORT (SUPPLEMENTAL)

This form is to be submitted by the party responsible for the oil and gas spill or release. Any spill or release which may impact waters of the State must be reported as soon as practicable; any spill over 20 bbls must be reported within 24 hours and all spills over five bbls must be reported within ten days. Submit a Site Investigation and Remediation Workplan (Form 27) when requested by the Director.

OPERATOR INFORMATON

Name of Operator	SANDRIDGE EXPLORATION & I	PRODUCTION	LLC	Operator	No: 10598	F	Phone Numbers
Address: 123 F	ROBERT S KERR AVE			**E	1 8	Phone:	
City: OKLAHON	MA CITY	State:	OK	Zip:	73102	Mobile:	(405) 590-7483
Contact Person:	Clay Harwell					Email:	charwell@sandridgeen ergy.com
1- 1-					<u> </u>		

nitial Report Date:	01/08/2016	Date o	of Discovery:	12/30/2015	Spill 7	Гуре:	Recent S	pill
Spill/Release Point Lo	cation:							
Locationof Spill/Relea	ase: QTRQT	R SWNE	SEC 32	TWP 7N	RNG	80W	MERIDIAN	6
Latitude: 40.53483	7 Longitue	de: -106.3	394970				_	၁ ကိုအ
'Municipality (if within	municipal bound	laries):		County: JACK	SON			
Reference Location:		-						
Facility Type: TANK I	3ATTERY	👿 Facil	lity/Location ID No	324	750			- HO-
		No E	xisting Facility or	Location ID No.			70	
		■ Well	API No. (Only if the	he reference facility	is well)	05-		
Fluid(s) Spilled/Releas	ed (please answ	ver Yes/No):						
Was one (1) barrel or	more called and	aida of harmi		. 1 F	No		ي د	
Secondary contains	ment, including	walis & flooi	r regardless of c	ntainment? onstruction materi		e sufficier	ntly impervious	to contain
Secondary contains any discharge from Were Five (5) barrels Estimated Total Spill Vo	ment, including to primary contains or more spilled? plume: use same	walls & floor ment until cle Ye ranges as ot	r regardless of co anup occurs. es hers for values	onstruction materi	ial, must b			
Secondary contains any discharge from Were Five (5) barrels Estimated Total Spill Vo Estin	ment, including of primary contains or more spilled? plume: use same mated Oil Spill Vo	walls & floor ment until cle Ye ranges as oti	r regardless of co anup occurs. es hers for values >0 and <1	onstruction materi	i al , must b	e Spill Volu	ume(bbl):	0
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Lost approx. (modifications	ng the PW tank to thaw 50 bbls before discover i.	r, a 2" nipple separat red by Heat Waves a	ed from a hamme and tank was shut	er union in the in. Schedule	production line causing repair to line and revie	g the PW tank to drain. w potential battery
List Agencies	s and Other Parties N	otified:				
		0	THER NOTIFIC	ATIONS		
<u>Date</u>	Agency/Party	Contact	-	one	Response	
1/6/2016	COGCC	Kris Neidel	97	0-871-1963	Form 19 to be filed	<u> </u>
			-			
		SPILL/R	ELEASE DETA	IL REPORT	S	
#1 Su	ipplemental Report Dat	e: 01/15/2016				
FLUIDS	BBL	s SPILLED BE	BL's RECOVERE	O Unknow	'n	
OIL		1	1			
CONDENSA ⁻	TE	0	0	111		
PRODUCED	WATER	50	50			
DRILLING FL	LUID	<u> </u>	0			
FLOW BACK FLUID						
LOW BACK	(FLUID		0			
OTHER E&P		0	0			
OTHER E&P	WASTE	0	0	m		
OTHER E&P specify: Was spill/rele Secondary		0 ned within berms or s	0 secondary contain	ment? YE		cy Pit constructed? N
OTHER E&P specify: Was spill/rele Secondary any discha	WASTE ease completely contain	0 ned within berms or s ng walls & floor reg ainment until cleanup	econdary contain	ment? YE	erial, must be sufficient	ly impervious to contain
OTHER E&P specify: Was spill/rele Secondary any discha A Form 15 Pi	WASTE ease completely contain y containment, includio arge from primary conta	0 ned within berms or s ng walls & floor reg ainment until cleanup mitted within 30 cal	econdary contain	ment? YE	ction of an emergenc	ly impervious to contain
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OTHER E&P specify: Was spill/rele Secondary any discha A Form 15 Pi Impacted Med	ease completely contain by containment, including arge from primary contain the Report shall be subted and the contact and the contact of the	ned within berms or song walls & floor regainment until cleanup mitted within 30 cally) Soil	gecondary contains ardless of constant contains ardless of constant contains are co	ment? YE	erial, must be sufficiently ection of an emergence ce Water	ly impervious to contain y pit y Drainage Feature act (feet): 20
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OTHER E&P specify: Was spill/rele Secondary any dische A Form 15 Pi Impacted Med Surface How was extel location had p	ease completely contain by containment, including arge from primary contain the Report shall be subsected (Check all that applete Area Impacted: Len Depth of ent determined?	ned within berms or song walls & floor regainment until cleanup mitted within 30 cally) Soil	gecondary contains ardless of constant contains ardless of constant contains are co	ment? YE	erial, must be sufficiently ection of an emergence ce Water	ly impervious to contain y pit y Drainage Feature act (feet): 20
OTHER E&P specify: Was spill/rele Secondary any discha A Form 15 Pi Impacted Med	ease completely contain y containment, including arge from primary containment of the subsection of the containment of the cont	ned within berms or song walls & floor regainment until cleanup mitted within 30 cally) Soil	gecondary contains ardless of constant contains ardless of constant contains are co	ment? YE	erial, must be sufficiently ection of an emergence ce Water	ly impervious to contain y pit y Drainage Feature act (feet): 20
OTHER E&P specify: Was spill/rele Secondary any dische A Form 15 Pi Impacted Med Surface How was extered ocation had p	ease completely contain y containment, including arge from primary containment of the subsection of the containment of the cont	ned within berms or song walls & floor regainment until cleanup mitted within 30 cally) Soil	gecondary contains ardless of constant contains ardless of constant contains are co	ment? YE	erial, must be sufficiently ection of an emergence ce Water	ly impervious to contain y pit y Drainage Feature act (feet): 20
OTHER E&P specify: Was spill/rele Secondary any dische A Form 15 Pi Impacted Med Surface How was exte ocation had p	ease completely contain y containment, including arge from primary containment of the subsection of the containment of the cont	ned within berms or song walls & floor regainment until cleanup mitted within 30 cally) Soil	gecondary contains ardless of constant ardless of constant ardless of constant ardless afte. Groundwater 30 0	ment? YE	erial, must be sufficiently ection of an emergence ce Water	ly impervious to contain y pit y Drainage Feature act (feet): 20
OTHER E&P specify: Was spill/rele Secondary any dische A Form 15 Pi Impacted Med Surface How was extered ocation had precipity of the Control of the Control Openth to Grounds	ease completely contain y containment, including arge from primary containment of the subsection of th	ned within berms or song walls & floor regularis and the second painment until cleanup mitted within 30 cally) Soil Soil Soil Soil Soil Soil Soil Soil	gecondary contains ardiess of constant ardiess of constant ardies after a constant articles after a constant	ment? YE ruction mate r the constru Surface	erial, must be sufficientication of an emergence water Down Depth of Impact (inches	ly impervious to contain by pit bry Drainage Feature act (feet): 20 es BGS):
OTHER E&P specify: Was spill/rele Secondary any dische A Form 15 Pi Impacted Med Surface How was extered ocation had precipity of the Ground o	ease completely contain y containment, including arge from primary containment of the subsection of th	ned within berms or song walls & floor regelinment until cleanup mitted within 30 call by) Soil Impact (feet): Impact (feet BGS):	econdary contain ardless of constant are arranged arranged are arranged arranged arranged are arranged ar	ment? YE ruction mate r the constru Surface	erial, must be sufficientic ction of an emergence ce Water Depth of Impact (inches particular) Depth of Impact (inches particular) Depth of Impact (such particular) Depth of Im	ly impervious to contain by pit by pit by Drainage Feature act (feet):20 es BGS):
OTHER E&P specify: Was spill/rele Secondary any dische A Form 15 Pi Impacted Med Surface How was extered ocation had precipity of the Ground o	ease completely contain y containment, including arge from primary containment of the subsection of th	ned within berms or song walls & floor regularited within 30 cally) X Soil	osecondary contains ardiess of constant ardiess of constant ardiess of constant ardies after a secondary after a secondary after a secondary after a secondary contains a seconda	ment? YE ruction mate r the constru Surface ster Wells with None X	erial, must be sufficientic ction of an emergence ce Water Down Width of Impart Depth of Impact (inches in 1/2 mile radius: Surface Water Springs	ly impervious to contain by pit by Drainage Feature act (feet):
OTHER E&P specify: Was spill/rele Secondary any dische A Form 15 Pi Impacted Med Surface How was extel location had p Gravel over line Depth to Ground If less than 1 in	ease completely contain y containment, including arge from primary containment of the subsection of th	ned within berms or song walls & floor regularis and the second painment until cleanup mitted within 30 call by)	osecondary contains ardiess of constant ardiess of constant ardiess of constant ardies after a secondary after a secondary after a secondary after a secondary contains a seconda	ment? YE ruction mate r the constru Surface	erial, must be sufficientic ction of an emergence ce Water Depth of Impact (inches particular) Depth of Impact (inches particular) Depth of Impact (such particular) Depth of Im	ly impervious to contain by pit by Drainage Feature act (feet):

		RE	QUEST FOR C	LOSURE		
	Reports should be ke place under an a		cts have been re	emediated or v	vhen further investigat	ion and corrective
Basis for Closu	re: Correctiv	e Actions Completed	d (documentation	attached)		
	■ Work pro	ceeding under an ap	proved Form 27			
	Form 27	Remediation Project	No:			
OPERATOR C	OMMENTS:					
I hereby certify	all statements made	in this form are to the	•	owledge true, c	orrect, and complete.	
	llatory Tech	Date:	01/15/2016	Email:	tgolay@sandridgeen	ergy.com
COA Type	W	<u>Description</u>				
<u> </u>		Attac	hment Ch	eck List		
Att Doc Num	<u>Name</u>					
400971886	FORM 19 SU	BMITTED				
400971890	SITE MAP					
Total Attach: 2 Fi	les					
		<u>Ge</u>	neral Comn	<u>nents</u>		
User Group	Comment					Comment Date

Total: 0 comment(s)

COLO STATE GEFICE DENYE

State of Colorado Oil and Gas Conservation Commission

1120 Lincoln Street, Suite 801, Denver, Colorado 80203

Phone: (303) 894-2100 Fax: (303) 894-2109

SPILL/RELEASE REPORT (INITIAL)

This form is to be submitted by the party responsible for the oil and gas spill or release. Any spill or release which may impact waters of the State must be reported as soon as practicable; any spill over 20 bbls must be reported within 24 hours and all spills over five bbls must be reported within ten days. Submit a Site Investigation and Remediation Workplan (Form 27) when requested by the Director.

Document Number:

400966056

Date Received:

01/08/2016

Spill report taken by: **NEIDEL, KRIS**

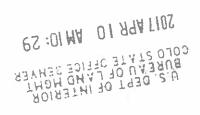
Spill/Release Point ID:

444502

Name of Operator: SANDRIDGE EXPLORATION & PROD	DUCTION LLC	Operator No: 105	98 Phone Numbers
Address: 123 ROBERT S KERR			Phone: ()_
City: OKLAHOMA CITY	State: OK	Zip: 73102	Mobile: (405) 590-7483
Contact Person: Clay Harwell			Email: <u>charweil@sandridgeen</u> <u>ergy.com</u>
	TIAL SPILL/RELI pill/Release Report	EASE REPORT t Doc# 400966056	
Initial Report Date: 01/07/2016 Date of	of Discovery: 0	1/05/2016 S	oill Type: Recent Spill
Spill/Release Point Location:			
Locationof Spill/Release: QTRQTR NENE	SEC 12	TWP 7N RI	NG 81W MERIDIAN 6
Latitude: 40.596919 Longitude: -106.4	26348		
'Municipality (if within municipal boundaries):		County: JACKSON	
Reference Location:			
Facility Type: TANK BATTERY X Facili	ty/Location ID No	412905	
∏ No E	xisting Facility or L	ocation ID No.	
☐ Well /	API No. (Only if the	e reference facility is well) 05
Fluid(s) Spilled/Released (please answer Yes/No):			
Was one (1) barrel or more spilled outside of berms	or secondary cont	tainment? No	1
Secondary containment, including walls & floor any discharge from primary containment until clea		nstruction material, mu	st be sufficiently impervious to contain
Were Five (5) barrels or more spilled?	s		
Estimated Total Spill Volume: use same ranges as oth	ers for values		
Estimated Oil Spill Volume(bbl):	>0 and <1	Estimated Condens	sate Spill Volume(bbl): 0
Estimated Flow Back Fluid Spill Volume(bbl):	0	Estimated Produced W	ater Spill Volume(bbl): >=5 and <100
Estimated Other E&P Waste Spill Volume(bbl):	0	Estimated Drilling F	luid Spill Volume(bbl): 0
Specify:			
Land Use:			
Current Land Use: NON-CROP LAND	Other(Spe	ecify):	
Weather Condition: 19 degrees; clear			
Surface Owner: FEE	Other(Sp	ecify):	
Check if impacted or threatened by spill/Release (p	ilease answer Ye:	s/No to all that apply):	
Waters of the State Residence/Occupied Str	ucture 🔳 Lives	stock Public By	way 🔲 Surface Water Supply Area
As defined in COGCC 100-Series Rules			

The produced	l water production II	ne separated from a hamme	er Union (3"). Suspect freez	vas stopped, contained, and recovered): Ing- discovered the heat trace line isolated from and reroute trace line correctly.
List Agencles	s and Other Parties		R NOTIFICATIONS	
Date	Agency/Party	Contact	Phone	Response
1/6/2016	COGCC	Kris Neidel	970-871-1963	Form 19 to be filed
	-		-	
OPERATOR	COMMENTS:			
Signed:	fy all statements ma	de in this form are to the be	est of my knowledge true, co Print Name: 01/08/2016 Email:	orrect, and complete. Tiffany Golay tgolay@sandridgeenergy.com
COA Type		Description		
		Yes/No)"; should inclu Produced Water Spill	ide the specific volume o	Spilled /Released (please answer f fluids spilled. Example: Estimated ">=5and<100", if volume spilled was 65
			or representative, Clay H	arwell. It was agreed that we will discuss
		Facility Id provided is selecting Facility num		OGCC staff, Kris Neidel for guidance in
			spill area; it should defir the spill map with require	ne (visually) the spill path. Supplemental and information.
				on Form 19 should be for the point of n supplemental report (due 10 days from
		<u>Attachm</u>	ent Check List	
Att Doc Num	<u>Name</u>			
400966056	FORM 19	SUBMITTED		
400966842	AERIAL PI	HOTOGRAPH		
Total Attach: 2	Files	Gener	al Comments	
User Group	Comment	- name and the state of the sta		Comment Date

Total: 0 comn	nont/cl			



State of Colorado Oil and Gas Conservation Commission

CO DNR

1120 Lincoln Street, Suite 801, Denver, Colorado 80203 Phone: (303) 894-2100 Fax: (303) 894-2109 Date Received: 01/15/2016

Spill report taken by:

Document Number:

400971863

Spill/Release Point ID: 444502

SPILL/RELEASE REPORT (SUPPLEMENTAL)

This form is to be submitted by the party responsible for the oil and gas spill or release. Any spill or release which may impact waters of the State must be reported as soon as practicable; any spill over 20 bbls must be reported within 24 hours and all spills over five bbls must be reported within ten days. Submit a Site Investigation and Remediation Workplan (Form 27) when requested by the Director.

Name of Operator: SANDRID	EXPLORATION & PRODUCTION	ILLC Operat	or No: 10598		Phone Numbers
Address: 123 ROBERT S	ERR AVE			Phone:	<u>()</u>
City: OKLAHOMA CITY	State:	OK Zip	73102	Mobile:	(405) 590-7483
Contact Person: Clay Har	40			Email:	charwell@sandridgeen ergy.com

	TIAL SPILL/REL pill/Release Repor		S.,,,,		
Initial Report Date: 01/07/2016 Date	of Discovery: 0	1/05/2016	Spill Type:	Rece	nt Spill
Spill/Release Point Location:			_		
Locationof Spill/Release: QTRQTR NENE	SEC 12	TWP 7N	RNG 81W	MERID	IAN 6
Latitude: 40.596919 Longitude: -106.4	26348				
'Municipality (if within municipal boundaries):		County: JACKS	, NC		
Reference Location:					
Facility Type: TANK BATTERY 🔀 Facil	ity/Location ID No	41290	15		
□ No E	xisting Facility or L	ocation ID No.			
Well	API No. (Only if the	e reference facility is	well) 05-	-	_
Fluid(s) Spilled/Released (please answer Yes/No):					
Was one (1) barrel or more spilled outside of berms	or secondary con	tainment?	No		
Secondary containment, including walls & floo any discharge from primary containment until cle		nstruction materia	, must be sufficie	ently imperv	ious to contain
Were Five (5) barrels or more spilled?	•				
Estimated Total Spill Volume: use same ranges as ot					
Estimated Oil Spill Volume(bbl):	>0 and <1	Estimated Cor	idensate Spill Vo	olume(bbl):	0
Estimated Flow Back Fluid Spill Volume(bbl):	0	Estimated Produce	ed Water Spill Vo	lume(bbl):	>=5 and <100
Estimated Other E&P Waste Spill Volume(bbl):	0	Estimated Drill	ing Fluid Spill Vo	- olume(bbl):	0
Specify:					
Land Use:					
Current Land Use: NON-CROP LAND	Other(Sp	ecify):			
Weather Condition: 19 degrees; clear					
Surface Owner: FEE	Other(Sp	ecify):			
Check if impacted or threatened by spill/Release (please answer Ye	s/No to all that app	ly):		
Waters of the State Residence/Occupied St	ructure 🔲 Live	stock 🗍 Publi	c Byway 🔳 S	urface Wate	er Supply Area
As defined in COGCC 100-Series Rules					

					zing- discovered the heat trace on and reroute trace line correc	
.ist Agencie	es and Other Parties N	lotified:	OTHER NOT	ITIO ATIONIO		
Date	Agency/Party	Contact	OTHER NOT	Phone	Response	
/6/2016	COGCC	Kris Nei	del	970-871-1963		
				41		
	1100	S	PILL/RELEASE D	_ Etail Report		
#1 S	upplemental Report Da		15/2016			<u> </u>
	•	.'s SPILLED	BBL's RECOV	ERED Unknov	vn	2017
OIL			1	1		200 (V) (U)
CONDENSA	ATE		 0	0		- 170-
PRODUCEI	D WATER	6	 0	60		
ORILLING F	 LUID		 D	0		
LOW BAC	K FLUID		0	0		10: 2: 00 KK 10:
OTHER E&I	P WASTE	(D	0		- W 高量物
:6			-			73
Was spill/rel		ing walls & f	loor regardless of d		ES Was an Emergency Pit o	
Was spill/rel Seconda any discl	ry containment, includ harge from primary con	ing walls & f tainment until bmitted with	loor regardless of d cleanup occurs. in 30 calendar days	onstruction mate	erial, must be sufficiently impe	
Was spill/rel Seconda any discl A Form 15 I	ry containment, includ harge from primary con Pit Report shall be sul	ing walls & f tainment until bmitted with oly) 🔯 Soi:	loor regardless of dicleanup occurs. in 30 calendar days	onstruction mate	erial, must be sufficiently impe	rvious to contain
Seconda any discl A Form 15 I Impacted M	nry containment, includ harge from primary con Pit Report shall be sul edia (Check all that app ce Area Impacted: Le	ing walls & f tainment until bmitted with oly) 🔯 Soi:	loor regardless of a cleanup occurs. in 30 calendar days Groundwa	onstruction mate	erial, must be sufficiently imperuction of an emergency pit ace Water	rvious to contain inage Feature t): 40
Was spill/rel Seconda any discl A Form 15 I Impacted M Surfa How was ex	ry containment, includ harge from primary con Pit Report shall be sul edia (Check all that app ce Area Impacted: Le Depth o	ing walls & f tainment until bmitted with ply) 区Soit	loor regardless of a cleanup occurs. in 30 calendar days Groundwa	onstruction mate	erial, must be sufficiently imperuction of an emergency pit ace Water Width of Impact (fee	rvious to contain inage Feature t): 40
Was spill/rel Seconda any discl A Form 15 I Impacted M Surfa How was ex	nry containment, includ harge from primary com- Pit Report shall be sul edia (Check all that app ice Area Impacted: Lei Depth c	ing walls & f tainment until bmitted with ply) 区Soit	loor regardless of a cleanup occurs. in 30 calendar days Groundwa	onstruction mate	erial, must be sufficiently imperuction of an emergency pit ace Water Width of Impact (fee	rvious to contain inage Feature t): 40
Was spill/rel Seconda any discl A Form 15 I Impacted M Surfa How was ex	ary containment, includ harge from primary com- Pit Report shall be sul- edia (Check all that app ice Area Impacted: Le Depth of tent determined? d plastic liner	ing walls & f tainment until bmitted with ply) 区Soit	loor regardless of decleanup occurs. in 30 calendar days Groundwa	onstruction mate	erial, must be sufficiently imperuction of an emergency pit ace Water Width of Impact (fee	rvious to contain inage Feature t): 40
Was spill/rel Seconda any disch A Form 15 I mpacted M Surfa How was ex cocation had	ary containment, includ harge from primary com- Pit Report shall be sul- edia (Check all that app ice Area Impacted: Le Depth of tent determined? d plastic liner	ing walls & f tainment until bmitted with ply) 区Soit	ioor regardless of a cleanup occurs. in 30 calendar days Groundwa ct (feet): 70 tt BGS): 0	after the construction mate	erial, must be sufficiently imperuction of an emergency pit ace Water Width of Impact (fee	rvious to contain inage Feature t): 40
Vas spill/rei Seconda any disch Form 15 I mpacted M Surfa How was ex cocation had	ery containment, include tharge from primary containment include tharge from primary contents (Check all that applice Area Impacted: Les Depth of the tent determined? In plastic liner y Description:	ing walls & fainment until bmitted with bly)	ioor regardless of a cleanup occurs. in 30 calendar days Groundwa ct (feet): 70 tt BGS): 0	after the construction mate	erial, must be sufficiently imperuation of an emergency pit ace Water	rvious to contain inage Feature t): 40
Was spill/rel Seconda any disch A Form 15 I mpacted M Surfa How was ex cocation had gravel over i	ery containment, include tharge from primary containment, include tharge from primary content (Check all that applice Area Impacted: Les Depth of the tent determined? Id plastic liner y Description:	ing walls & fainment until bmitted with bly)	loor regardless of a cleanup occurs. in 30 calendar days Groundwa et (feet): 70 t BGS): 0	after the construction mater the construction mater the construction mater the construction of the constru	erial, must be sufficiently imperuction of an emergency pit ace Water	inage Feature t): 40
Was spill/rel Seconda any disch A Form 15 I mpacted M Surfa How was ex cocation had gravel over i	ery containment, include tharge from primary containment, include tharge from primary content (Check all that applice Area Impacted: Les Depth of the tent determined? Id plastic liner y Description:	ing walls & fainment until bmitted with bly)	loor regardless of a cleanup occurs. in 30 calendar days Groundwa et (feet): 70 t BGS): 0	er Water Wells with	erial, must be sufficiently imperuction of an emergency pit ace Water	inage Feature t): 40 ii): None IX
Was spill/rel Seconda any discl A Form 15 I Impacted M Surfa How was ex Location had Goil/Geology gravel over I Depth to Gro f less than	ery containment, include tharge from primary containment, include tharge from primary content (Check all that applice Area Impacted: Les Depth of the tent determined? Id plastic liner y Description:	ing walls & fainment until bmitted with bly)	Itoor regardless of a cleanup occurs. In 30 calendar days Groundward (feet): 70 tt BGS): 0 Numbra Water Well Wetlands	er Water Wells with None X	erial, must be sufficiently imperuction of an emergency pit ace Water	None X
Was spill/rel Seconda any discl A Form 15 I mpacted M Surfa How was ex cocation had gravel over I Depth to Gro f less than	ery containment, include tharge from primary containment, include tharge from primary content (Check all that applice Area Impacted: Les Depth of the tent determined? In plastic liner Description: Under Coundwater (feet BGS) If mile, distance in feet the content of the content of the coundwater (feet BGS)	ing walls & f tainment until bmitted with oly)	Numb Water Well Wetlands Livestock	er Water Wells with None X None X	erial, must be sufficiently imperuction of an emergency pit ace Water	None X

REQUEST FOR CLOSURE Spill/Release Reports should be closed when impacts have been remediated or when further investigation and corrective actions will take place under an approved Form 27. Basis for Closure: X Corrective Actions Completed (documentation attached) Work proceeding under an approved Form 27 Form 27 Remediation Project No:

OPERATOR COMMENTS:

I hereby certify all statements made	e in this form are to the be	st of my knowledge true,	correct, and complete.
Signed:		Print Name:	Tiffany Golay
Title: Sr Regulatory Tech	Date: 0)1/15/2016 Email:	tgolay@sandridgeenergy.com

COA Type	<u>Description</u>

Attachment Check List

Att Doc Num	<u>Name</u>
400971863	FORM 19 SUBMITTED
400971867	SITE MAP

Total Attach: 2 Files

General Comments

<u>User Group</u>	Comment	Comment Date
Environmental	water well, required information are on another supplemental report.	2/1/2016
		12:53:53 PM

Total: 1 comment(s)

State of Colorado Oil and Gas Conservation Commission

1120 Lincoln Street, Suite 801, Denver, Colorado 80203 Phone: (303) 894-2100 Fax: (303) 894-2109

400972044 Date Received: 01/15/2016

> Spill report taken by: **NEIDEL, KRIS**

Document Number:

Spill/Release Point ID: 444502

SPILL/RELEASE REPORT (SUPPLEMENTAL)

This form is to be submitted by the party responsible for the oil and gas spill or release. Any spill or release which may impact waters of the State must be reported as soon as practicable; any spill over 20 bbls must be reported within 24 hours and all spills over five bbls must be reported within ten days. Submit a Site Investigation and Remediation Workplan (Form 27) when requested by the Director.

Name of Operator: SANDRIDG	GE EXPLORATION & F	RODUCTION	LLC	Operator	No:	10598	F	hone Num	bers
Address: 123 ROBERT S	KERR AVE						Phone:	()_	
City: OKLAHOMA CITY		State:	ок	Zip:	73102		Mobile:	(405) 590-	7483
Contact Person: Clay Harw	vell						Email:		sandridgeen
		INITIAL SP	ILL/RELI	EASE REPO	ORT				
	fniti	al Spill/Relea	ase Repor	t Doc#400	966056				
Initial Report Date: 01/07/	2016 Da	te of Discov	ery: 0	1/05/2016	_	Spill Typ	pe:	Recent Sp	ill
Spill/Release Point Location:	<u>.</u>								
Locationof Spill/Release:	QTRQTR NEN	E SEC	12	TWP 71	1	RNG 8	31Wi	MERIDIAN	6
Latitude: 40.596919	Longitude: -10	06.426348							000
'Municipality (if within munic	ipal boundaries):			County: J	IACKSO	N		:	UR LOR
Reference Location:	_							_	APR
Facility Type: TANK BATTE	RY 🔀 F	acility/Locati	ion ID No		412905	5			- 1404
	- N	lo Existing F	acility or L	ocation ID No	o .	_			⊃ ² 2, C
	□ v	Vell API No.	(Only if the	e reference fa	cility is v	well) ()5		322
Fluid(s) Spilled/Released (ple	ase answer Yes/N	lo):							
Was one (1) barrel or more s	spilled outside of be	rms or seco	ndary con	tainment?		No			
Secondary containment, li any discharge from primai	n cluding walls & f ry containment until	loor regardi cleanup occ	ess of co curs.	nstruction m	aterial,	must be s	sufficiently	impervious	to contain
Were Five (5) barrels or mor	e spilled?	Yes	_						
Estimated Total Spill Volume:	use same ranges a:	s others for v	/alues						
Estimated C	Oil Spill Volume(bbl)	: >0 and	<1	Estimat	ed Cond	lensate S	pill Volume	e(bbl):	0
Estimated Flow Back Flu	id Spill Volume(bbl)	: 0		Estimated F	Produced	d Water S	pi∥ Volume	e(bbl): _ >=5	and <100
Estimated Other E&P Was	te Spill Volume(bbl)	: 0		Estimat	ed Drillin	ng Fluid S	pill Volume	(bbl):	0
Specify:			_						
Land Use:									
Current Land Use: NON-0	CROP LAND		Other(Sp	ecify):					
Weather Condition: 19 deg	grees; clear								
Surface Owner: FEE			Other(Sp	ecify):					
Check if impacted or threater	ned by spill/Releas	se (please a	nswer Ye	s/No to all th	at apply	/):			
Waters of the State 🔲 🛛 F	Residence/Occupied	Structure	Live:	stock 🔲	Public	Byway 🏻	Surfac	e Water Su	pply Area
As defined in COCCC 100	LSories Rules								

	water production line sep r line. The spill will be re	arated from a hammer Unio mediated- schedule repairs	n (3"). Suspect freez to the hammer Union	was stopped, contained, and recoing-discovered the heat trace line and reroute trace line correctly.	e isolated fron
ist Agencies	and Other Parties Notif	led:			
		OTHER NO	TIFICATIONS		
<u>Date</u>	Agency/Party	Contact	<u>Phone</u>	Response	
1/6/2016	cogcc	Kris Neidel	970-871-1963	Form 19 to be filed	
			-		
		SPILL/RELEASE	DETAIL REPORTS	,	
#1 Supp	plemental Report Date:	01/15/2016			
FLUIDS	BBL's S	PILLED BBL's RECO	VERED Unknown		
OIL		1	1		
CONDENSATE	E	0	0		
PRODUCED W	VATER	60	60		
DRILLING FLU		0	0		
FLOW BACK F	-LUID		0		
OTHER E&P W	VASTE		0.		
specify:					
•		within berms or secondary o		_	
		nans & noor regardless or nent until cleanup occurs.	construction mater	ial, must be sufficiently impervio	us to contain
A Form 15 Pit	Report shall be submit	ted within 30 calendar day	s after the construc	tion of an emergency pit	
Impacted Medi	ia (Check all that apply)	🗵 Soil 🔲 Groundw	vater 🔲 Surfac	e Water 🔲 Dry Drainag	je Feature
		of Impact (feet): 70		Width of Impact (feet):	
Surface	Area Impacted: Length				40
Surface		pact (feet BGS): 0		Depth of Impact (inches BGS): _	
	Depth of Im			Depth of Impact (inches BGS): _	
How was exten	Depth of Im nt determined?			Depth of Impact (inches BGS): _	
Surface How was exten location had pla Soil/Geology D	Depth of Im nt determined? astic liner			Depth of Impact (inches BGS): _	
How was exten location had pla	Depth of Imnt determined? astic liner			Depth of Impact (inches BGS): _	
How was exten location had pla Soil/Geology D	Depth of Imnt determined? astic liner			Depth of Impact (inches BGS): _	
How was exten ocation had pla Soil/Geology D gravel over line	Depth of Imnt determined? astic liner	pact (feet BGS): 0		Depth of Impact (inches BGS):	
How was extenocation had plassification had plassification from the second seco	Depth of Imnt determined? astic liner Description:	pact (feet BGS): 0	ber Water Wells with	•	
How was exten location had plass Soil/Geology Degravel over line Depth to Groun	Depth of Imnt determined? astic liner Description:	pact (feet BGS): 0	ber Water Wells with	in 1/2 mile radius: 0	None 🗐
How was extendocation had plates of the plat	Depth of Imnt determined? astic liner Description:	pact (feet BGS): 0 Num arest Water Well	ber Water Wells with	in 1/2 mile radius: 0 Surface Water 209	None None

		R	EQUEST FOR CL	OSURE		at the second
		closed when impa approved Form 27		ediated or v	vhen further investiga	ition and corrective
Basis for Closu	ire: 🗍 Correcti	ive Actions Complete	ed (documentation a	tached)		
	■ Work pr	oceeding under an a	pproved Form 27			
	Form 2	7 Remediation Projec	ot No:	_		
OPERATOR C	OMMENTS:					
I hereby certify	all statements mad	le in this form are to	the best of my know	edge true, c	orrect, and complete.	
Signed:			Pri	nt Name:	Tiffany Golay	
Title: Sr Regu	ulatory Tech	Date:	01/15/2016	Email:	tgolay@sandridgee	nrgy.com
COA Type		Description				
		Atta	chment Chec	k List		10 0.8
Att Doc Num	<u>Name</u>					
400972044	FORM 19 S	UBMITTED				
Total Attach: 1 F	iles					
		<u>G</u>	eneral Comme	<u>ents</u>		
User Group	Comment					Comment Date
Total: 0 comme	ent(s)					

2017 APR 10 AM 10: 29

State of Colorado Oil and Gas Conservation Commission

1120 Lincoln Street, Suite 801, Denver, Colorado 80203 Phone (303) 894-2100 Fax: (303) 894-2109

SPILL/RELEASE REPORT (INITIAL)

This form is to be submitted by the party responsible for the oil and gas spill or release. Any spill or release which may impact waters of the State must be reported as soon as practicable, any spill over 20 bbls must be reported within 24 hours and all spills over five bbls must be reported within ten days. Submit a Site Investigation and Remediation Workplan (Form 27) when requested by the Director.

Document Number: 401039536 Date Received: 05/03/2016 Spill report taken by: **NEIDEL, KRIS** Spill/Release Point ID: 445701

Name of Operator: SANDRIDGE EXPLORATION & PRODUCTION LLC	Operator No: 10598 Phone Numbers
Address: 123 ROBERT S KERR AVE	Phone: (405) 430-4515
City: OKLAHOMA CITY State: OK	Zip: 73102 Mobile: (405) 590-7483
Contact Person: Clay Harwell	Email: <u>charwell@sandridgeen</u> <u>ergy.com</u>
INITIAL SPILL/R	ELEASE REPORT
Initial Spill/Release Re	port Doc# 401039536
Initial Report Date: 05/02/2016 Date of Discovery:	04/26/2016 Spill Type: Recent Spill
Spill/Release Point Location:	
Locationof Spill/Release: QTRQTR SWSW SEC 29	TWP 9N RNG 79W MERIDIAN 6
Latitude: 40,717000 Longitude: -106.294000	
Municipality (if within municipal boundaries): Walden	County: JACKSON
Reference Location:	
Facility Type: OTHER	No
X No Existing Facility	or Location ID No.
Well API No. (Only i	f the reference facility is well) 05
Fluid(s) Spilled/Released (please answer Yes/No):	
Was one (1) barrel or more spilled outside of berms or secondary	containment? Yes
Secondary containment, including walls & floor regardless of any discharge from primary containment until cleanup occurs.	construction material, must be sufficiently impervious to contain
Were Five (5) barrels or more spilled? Yes	
Estimated Total Spill Volume: use same ranges as others for values	
Estimated Oil Spill Volume(bbl):0	Estimated Condensate Spill Volume(bbl): 0
Estimated Flow Back Fluid Spill Volume(bbl): 0	Estimated Produced Water Spill Volume(bbl): 0
Estimated Other E&P Waste Spill Volume(bbl): >=5 and <100	Estimated Drilling Fluid Spill Volume(bbl): >=5 and <100
Specify: Water Based Drill Cuttings	
Land Use:	
Current Land Use: NON-CROP LAND Other	(Specify): Intersection of CO 125, CO 14 Hwy
Weather Condition: 36 degrees, Cloudy	
Surface Owner: OTHER (SPECIFY) Other	(Specify): COMMERICAL
Check if impacted or threatened by spill/Release (please answer	Yes/No to all that apply):
Waters of the State Residence/Occupied Structure L	ivestock Public Byway 🔀 Surface Water Supply Area
As defined in COGCC 100-Series Rules	

On April 26, 2016 at appoximately 1300 hours, a truck owned by Bar-S Services transporting water-based drill cuttings in a side-dump trailer from the Mutul 0780 4-7H well departed their facility in Walden, CO to deliver the cuttings to the Twin Emviro landfill in Milner, CO for disposal. While traveling southbound on CO Hwy 125 toward the intersection of CO Hwy 14, the truck driver applied his brakes to slow for the turn, resulting in approximately 10 tons of drill cuttings being discharged from the side dump trailer onto the ground. The resulting spill impacted approximately 300 linear feet of HWY 14 and the adjacent shoulder. Bar-S notified the CDOT, The Colorado Highway Petrol and SandRidge Energy of the incident, after which SandRidge dispatched its clean-up contractor to the spill site. The intersection was closed and traffic re-routed to allow contractor personnel safe access to the spill site. The spill was cleaned up and approved by CDOT, the road was open at 1940 hours.

List Agencies and Other Parties Notified:

OTHER NOTIFICATIONS

<u>Date</u>	Agency/Party	Contact	<u>Phone</u>	Response
4/26/2016	CDOT	Wagner Kelly	970-724-9685	CODOT did not required a HAZMAT response as the "spill" was contained and cleaned up. No citation or violation was issued.
5/26/2016	COGCC	Kris Neidel	970-871-1963	Notified Kris of the spill and the details.

OPERATOR COMMENTS:

I hereby certify all statements made in this form are to the best of my knowledge true, correct, and complete.								
Signe			·	Print Name:	Clay Harwell			
Title:	EH&S Supervisor	Date:	05/03/2016	Email:	charwell@sandridgeenergy.com			
COA 1	·vpe	Description						

Attachment Check List

Att Doc Num	<u>Name</u>	
401039536	FORM 19 SUBMITTED	1

Total Attach: 1 Files

General Comments

User Group	Comment	Comment Date
Environmental	Operator should submit a supplemental report that has "root cause analysis", specifically addressing why the cuttings had a liquid phase. Please include measures to prevent this same event from re-occurring.	5/12/2016 1:34:48 PM

Total: 1 comment(s)

2017 APR 10 AMIn: 20

COLOSTATE OFFICE BEN YER

State of Colorado Oil and Gas Conservation Commission

1120 Lincoln Street, Suite 801, Denver, Colorado 80203 Phone: (303) 894-2100 Fax: (303) 894-2109

401071988 Date Received:

Document Number:

07/01/2016

Spill report taken by: NEIDEL KRIS

Spill/Release Point ID: 446487

SPILL/RELEASE REPORT (INITIAL)

This form is to be submitted by the party responsible for the oil and gas spill or release. Any spill or release which may impact waters of the State must be reported as soon as practicable; any spill over 20 bbls must be reported within 24 hours and all spills over five bbls must be reported within ten days. Submit a Site Investigation and Remediation Workplan (Form 27) when requested by the Director.

OPERATOR INFORMATON

Name of Operator	SANDRIDGE EXPLORATION &	PRODUCTION	LLC	Operator	No: 10	598		Phone Numbers
Address: 123 F	ROBERT S KERR AVE						Phone:	(405) 4296630
City: OKLAHON	MA CITY	State:	ОК	Zip:	73102	115-5-121	Mobile:	(405) 4205570
Contact Person:	Ken Raymond						Email:	kraymond@sandridgee nergy.com

INITIAL COLLIDEL SACE DEDOCT

Initial Report Date:	06/30/2016	Date of Discovery:	06/30/2016	Spill Type:	Recent Spi	li .
Spill/Release Point Lo	cation:					
Locationof Spill/Relea	ase: QTRQTR	SWSW SEC 32	TWP_7N	RNG 80W	MERIDIAN	6
Latitude: 40.528256	6 Longitude:	-106.404319				
'Municipality (if within	municipal boundaries	s):	County: JACK	SON		
Reference Location:						
Facility Type: WELL		Facility/Location ID No	o			
		No Existing Facility or	Location ID No.			
	ì	₩ Well API No. (Only if t	the reference facility	is well) 05-057	-06469	
Eluid(e) Snillad/Dalass	sed (please answer Y	(es/No):				
i iuiu(s) Spilieuriveieas	**					
• • • • • • • • • • • • • • • • • • • •		of berms or secondary co	intainment?	Yes		
Was one (1) barrel or Secondary contains	more spilled outside ment, including wall s	s & floor regardless of c			lly impervious t	o contain
Was one (1) barrel or Secondary contains any discharge from	more spilled outside ment, including wall s primary containment	s & floor regardless of c until cleanup occurs.			1ly impervious t	o contain
Was one (1) barrel or Secondary contains any discharge from Were Five (5) barrels	more spilled outside ment, including wall s primary containment or more spilled?	s & floor regardless of contil cleanup occurs. Yes			tly impervious t	o contain
Was one (1) barrel or Secondary contains any discharge from Were Five (5) barrels Estimated Total Spill Vo	more spilled outside ment, including walls primary containment or more spilled?	s & floor regardless of countil cleanup occurs. Yes les as others for values	construction mater	ial, must be sufficien		
Was one (1) barrel or Secondary contains any discharge from Were Five (5) barrels Estimated Total Spill Vo	r more spilled outside ment, including walls primary containment or more spilled? plume: use same rang mated Oil Spill Volume	s & floor regardless of countil cleanup occurs. Yes les as others for values e(bbl): >=5 and <100	construction mater	ial, must be sufficient	me(bbl):	0
Was one (1) barrel or Secondary contains any discharge from Were Five (5) barrels Estimated Total Spill Vo Estimated Flow Ba	more spilled outside ment, including walls primary containment or more spilled? Jolume: use same rang mated Oil Spill Volume ack Fluid Spill Volume	s & floor regardless of control cleanup occurs. Yes less as others for values a(bbl): >=5 and <100 a(bbl): 0	Estimated Produ	ial, must be sufficient condensate Spill Volu uced Water Spill Volu	me(bbl): 	0
Was one (1) barrel or Secondary contains any discharge from Were Five (5) barrels Estimated Total Spill Vo Estimated Flow Ba	r more spilled outside ment, including walls primary containment or more spilled? plume: use same rang mated Oil Spill Volume	s & floor regardless of control cleanup occurs. Yes less as others for values a(bbl): >=5 and <100 a(bbl): 0	Estimated Produ	ial, must be sufficient	me(bbl): 	0
Was one (1) barrel or Secondary contains any discharge from Were Five (5) barrels Estimated Total Spill Vo Estim Estimated Flow Ba Estimated Other E& Specify:	more spilled outside ment, including walls primary containment or more spilled? Jolume: use same rang mated Oil Spill Volume ack Fluid Spill Volume	s & floor regardless of control cleanup occurs. Yes less as others for values a(bbl): >=5 and <100 a(bbl): 0	Estimated Produ	ial, must be sufficient condensate Spill Volu uced Water Spill Volu	me(bbl): 	0
Was one (1) barrel or Secondary contains any discharge from Were Five (5) barrels Estimated Total Spill Vo Estim Estimated Flow Ba Estimated Other E& Specify: Land Use:	r more spilled outside ment, including walls of primary containment or more spilled? Jolume: use same rang mated Oil Spill Volume ack Fluid Spill Volume.	s & floor regardless of countil cleanup occurs. Yes les as others for values a(bbl): >=5 and <100 a(bbl): 0 a(bbl): 0	Estimated C Estimated Produ Estimated D	ial, must be sufficient condensate Spill Volu uced Water Spill Volu	me(bbl): 	0
Was one (1) barrel or Secondary contains any discharge from Were Five (5) barrels Estimated Total Spill Vo Estim Estimated Flow Ba Estimated Other E& Specify: Land Use: Current Land Use:	more spilled outside ment, including walls primary containment or more spilled? Dolume: use same rang mated Oil Spill Volume ack Fluid Spill Volume RP Waste Spill Volume	s & floor regardless of control cleanup occurs. Yes les as others for values e(bbl): >=5 and <100 e(bbl): 0 Other(S	Estimated Produ	ial, must be sufficient condensate Spill Volu uced Water Spill Volu	me(bbl): 	0
Was one (1) barrel or Secondary contains any discharge from Were Five (5) barrels Estimated Total Spill Vo Estim Estimated Flow Ba Estimated Other E& Specify: Land Use: Current Land Use:	r more spilled outside ment, including walls of primary containment or more spilled? Jolume: use same rang mated Oil Spill Volume ack Fluid Spill Volume.	s & floor regardless of control cleanup occurs. Yes les as others for values e(bbl): >=5 and <100 e(bbl): 0 Other(S	Estimated C Estimated Produ Estimated D	ial, must be sufficient condensate Spill Volu uced Water Spill Volu	me(bbl): 	0
Was one (1) barrel or Secondary contains any discharge from Were Five (5) barrels Estimated Total Spill Vo Estim Estimated Flow Ba Estimated Other E& Specify: Land Use: Current Land Use:	more spilled outside ment, including walls primary containment or more spilled? clume: use same rang mated Oil Spill Volume ack Fluid Spill Volume P Waste Spill Volume NON-CROP LAND Clear and 64 degrees	s & floor regardless of control cleanup occurs. Yes les as others for values e(bbl): >=5 and <100 e(bbl): 0 e(bbl): 0 Other(S	Estimated C Estimated Produ Estimated D	ial, must be sufficient condensate Spill Volu uced Water Spill Volu	me(bbl): 	0
Was one (1) barrel or Secondary contains any discharge from Were Five (5) barrels Estimated Total Spill Vo Estim Estimated Flow Ba Estimated Other E& Specify: Land Use: Current Land Use: Weather Condition: Surface Owner:	r more spilled outside ment, including walls or more spilled? John Charles of the same range mated Oil Spill Volume ack Fluid Spill Volume AP Waste Spill Volume NON-CROP LAND Clear and 64 degreese FEE	s & floor regardless of control cleanup occurs. Yes les as others for values e(bbl): >=5 and <100 e(bbl): 0 e(bbl): 0 Other(S	Estimated C Estimated Produ Estimated D Specify):	ial, must be sufficient condensate Spill Volu aced Water Spill Volu rilling Fluid Spill Volu	me(bbl): 	0

Describe what is known about the spill/release event (what happened -- including how it was stopped, contained, and recovered): Excess cable on the stroke cable snagged the nipple holding the pressure gauge on the pump tee. The nipple broke allowing oil to spill on the ground around the well head. Approximately 12 BBL of oil was spilled of which apporximately 10 BBL was recovered. The broken nipple was replaced and the well placed back into service. A vacuum truck removed the spilled oil. The contaminated soil will be removed and placed in containment for off-site disposal. List Agencies and Other Parties Notified: OTHER NOTIFICATIONS Date Agency/Party Contact Phone Response COGCC Kris Neidel 970-8711963 COGCC was notified who will inspect the well site on 07/01/2016.

OPERATOR COMMENTS:

I herel	I hereby certify all statements made in this form are to the best of my knowledge true, correct, and complete.								
Signe	d:			Print Name:	Ken Raymond	_			
Title:	EHS Manager	Date:	07/01/2016	Email:	kraymond@sandrisgeenergy.com				

COA Type Description

Attachment Check List

Att Doc Num	<u>Name</u>	
401071988	FORM 19 SUBMITTED	

Total Attach: 1 Files

General Comments

<u>User Group</u>	Comment	Comment Date
Environmental	final request for closure shall include total volume of soil removed and final disposal location.	7/6/2016 8:32:13 AM
Environmental	It is understood that the spill did not leave the location (pad).	7/6/2016 8:23:37 AM
Environmental	supplemental report should have a more accurate volume of oil. Due 7/10/2016.	7/6/2016 8:23:10 AM

Total: 3 comment(s)

2017 APR 10 AH 10: 30

O.S. DEPT OF HITERIOR
BUREAU OF LAND MONT
COLO STATE OFFICE DENYER

State of Colorado Oil and Gas Conservation Commission

DNR CO

1120 Lincoln Street, Suite 801, Denver, Colorado 80203 Phone: (303) 894-2100 Fax: (303) 894-2109 401077678

Date Received:

07/14/2016

Document Number:

Spill report taken by: NEIDEL, KRIS

Spill/Release Point ID: 446739

SPILL/RELEASE REPORT (INITIAL)

This form is to be submitted by the party responsible for the oil and gas spill or release. Any spill or release which may impact waters of the State must be reported as soon as practicable; any spill over 20 bbls must be reported within 24 hours and all spills over five bbls must be reported within ten days. Submit a Site Investigation and Remediation Workplan (Form 27) when requested by the Director.

OPERATOR INFORMATON

Name of Operator: SANDRIDGE EXPLORATION & PRODUCTION LLC			LLC	Operator	No: 10598		Phone Numbers
Address: 123 F	ROBERT S KERR AVE					Phone:	(405) 5907483
City: OKLAHON	MA CITY	State:	ок	Zip:	73102	Mobile:	(405) 5907483
Contact Person:	Clay Harwell					Email:	charwell@sandridgeen ergy.com

INITIAL SPILL/RELEASE REPORT

Initial Report Date:	07/13/20	16	Date o	of Discovery	/: <u> </u>	7/12/2016	5	Spill 7	Type:	Rece n t Sp	ill
Spill/Release Point Lo	cation:										
Locationof Spill/Relea	ase:	QTRQTR	NENE	SEC _	88	TWP	6N	RNG	W08	MERIDIAN	6
Latitude: 40.51118	0	Longitude:	-106.3	91010							
'Municipality (if within	ı municipa	ıl boundarie	es):			Count	y: JACKS	SON			
Reference Location:											
Facility Type: WELL			Facil	ity/Location	ID No			_			
			☐ No E	xisting Faci	lity or L	ocation II	O No.				
			X Well	API No. (Oı	nly if the	e referenc	ce facility i	s well)	05-05	7-06520	
Fluid(s) Spilled/Releas	ed (pleas	e answer '	Yes/No):								
Fluid(s) Spilled/Releas Was one (1) barrel or			•	or seconda	ary cont	tainment?	,	Yes			
Was one (1) barrel or Secondary contain	r more spil ment, incl	lled outside Iuding wall	of berms	regardles	of co				e sufficie	ntly impervious	to contail
Was one (1) barrel or Secondary contain any discharge from	r more spil ment, incl n primary d	lled outside luding wall containment	of berms Is & floor t until clea	regardies: anup occurs	of co				e sufficie	ntly impervious	to contail
Was one (1) barrel or Secondary contain any discharge from Were Five (5) barrels	more spil ment, inci n primary o	lled outside luding wall containment spilled?	of berms is & floor t until clea Ye	regardies: anup occurs	of co				e sufficie	ntly impervious	to contaiı
Was one (1) barrel or Secondary contain any discharge from Were Five (5) barrels Estimated Total Spill Vo	more spil ment, incl primary of or more solume: use	lled outside luding wall containment spilled?	of berms is & floor t until clea Ye ges as oth	regardless anup occurs s ners for valu	of col	nstructio	n materia	il, must b			
Was one (1) barrel or Secondary contain any discharge from Were Five (5) barrels Estimated Total Spill Vo	more spil ment, incl n primary of or more solume: use mated Oil S	lled outside luding wall containment spilled? e same rang Spill Volume	of berms Is & floor t until clea Ye ges as oth	regardless anup occurs s ners for value =5 and <10	of col	<i>nstructio</i> Esti	n materia	ni, must be	Spill Vol	ume(bbl):	to contain
Was one (1) barrel or Secondary contain any discharge from Were Five (5) barrels Estimated Total Spill Vo Estir Estimated Flow B	r more spil ment, inch primary of or more solume: use mated Oil sack Fluid s	lled outside luding wall containment spilled? e same rang Spill Volume	of berms Is & floor t until clea Ye ges as oth e(bbl):	regardless anup occurs s ners for valu >=5 and <10	of col	nstructio Esti Estimate	materia mated Co	al, must be indensate and Water	Spill Vol Spill Vol	ume(bbl):	0
Was one (1) barrel or Secondary contain any discharge from Were Five (5) barrels Estimated Total Spill Vo Estir Estimated Flow B	r more spil ment, inch primary of or more solume: use mated Oil sack Fluid s	lled outside luding wall containment spilled? e same rang Spill Volume	of berms Is & floor t until clea Ye ges as oth e(bbl):	regardless anup occurs s ners for valu >=5 and <10	of col	nstructio Esti Estimate	materia mated Co	al, must be indensate and Water	Spill Vol Spill Vol	ume(bbl):	0
Was one (1) barrel or Secondary contain any discharge from Were Five (5) barrels Estimated Total Spill Vo Estir Estimated Flow B Estimated Other E& Specify:	r more spil ment, inch primary of or more solume: use mated Oil sack Fluid s	lled outside luding wall containment spilled? e same rang Spill Volume	of berms Is & floor t until clea Ye ges as oth e(bbl):	regardless anup occurs s ners for valu >=5 and <10	of col	nstructio Esti Estimate	materia mated Co	al, must be indensate and Water	Spill Vol Spill Vol	ume(bbl):	0
Was one (1) barrel or Secondary contain any discharge from Were Five (5) barrels Estimated Total Spill Vo Estir Estimated Flow B Estimated Other E& Specify:	r more spil ment, incl n primary of or more solume: use mated Oil s ack Fluid s	lled outside luding wall containment spilled? s same rang Spill Volume Spill Volume	of berms Is & floor t until clea Ye ges as oth e(bbl):	regardless anup occurs s ners for valu =5 and <10 0	of col	nstructio Esti Estimate Esti	materia mated Co ed Produc mated Dri	ndensate ed Water	Spill Vol Spill Vol Spill Vol	ume(bbl): ume(bbl): ume(bbl):	0 0 0
Was one (1) barrel or Secondary contain any discharge from Were Five (5) barrels Estimated Total Spill Vo Estir Estimated Flow B Estimated Other E8 Specify: Land Use:	more spil ment, incl primary of or more s cor more s	lled outside luding wall containment spilled? e same rang Spill Volume Spill Volume Spill Volume	of berms Is & floor t until clea Ye ges as oth e(bbl): e(bbl):	regardless anup occurs s ners for valu =5 and <10 0	s of col	nstructio Esti Estimate Esti	materia mated Co ed Produc mated Dri	ndensate ed Water	Spill Vol Spill Vol Spill Vol	ume(bbl):	0 0 0
Secondary contain any discharge from Were Five (5) barrels Estimated Total Spill Vo Estimated Flow B Estimated Other E8 Specify: Land Use: Current Land Use: Weather Condition:	more spil ment, incl primary of or more solume: use mated Oil s ack Fluid s AP Waste s	lled outside luding wall containment spilled? e same rang Spill Volume Spill Volume Spill Volume	of berms Is & floor t until clea Ye ges as oth e(bbl): e(bbl):	regardless anup occurs s ners for valu =5 and <10 0 0	s of col	Esti Estimate Esti	materia mated Co ed Produc mated Dri	ndensate ed Water	Spill Vol Spill Vol Spill Vol	ume(bbl): ume(bbl): ume(bbl):	0 0 0
Was one (1) barrel or Secondary contain any discharge from Were Five (5) barrels Estimated Total Spill Vo Estim Estimated Flow B Estimated Other E& Specify: Land Use: Current Land Use:	more spil ment, incl primary of or more s plume: use mated Oil s ack Fluid s AP Waste s NON-CR Clear, Wi	lled outside luding wall containment spilled? e same rang Spill Volume Spill Volume Spill Volume OP LAND	of berms Is & floor t until clea Ye ges as oth e(bbl): e(bbl): e(bbl):	regardless anup occurs s ners for valu =5 and <10 0 0 Ot	s of col	Esti Estimate Esti ecify):	materia	ndensate ed Water	Spill Vol Spill Vol Spill Vol	ume(bbl): ume(bbl): ume(bbl):	0 0 0

An inspection into the cause of the release at the Surprise 02-8H revealed that the rod packing was leaking which normally would be collected by the "e-pot". However, the e-pot's high level kill switch malfunctioned causing the pumping unit to repeatedly shut down and restart. This allowed the oil that was leaking past the rod packing to completely fill up the e-pot, resulting in oil to exit the top of the pumping tee as a mist. Due to wind speeds between 30-40 mph, the oil mist was carried off-site in an easterly direction and onto private land adjacent to the well site. An area estimated to be approximately 750' x 400' was impacted. A remedial response contractor was dispatched to the area that removed free liquids via a vacuum truck. Impacted vegetation (i.e. sage brush) will be addressed in the near term the results of which will be desrcibed in a supplemental report. The landowners were notified of the spill. The kill switch will be replaced then tested to prevent a recurrence.

List Agencies and Other Parties Notified:

OTHER NOTIFICATIONS

<u>Date</u>	Agency/Party	Contact	Phone	Response
7/12/2016	cogcc	Kris Neidel		Informed Kris of the spill and our plans to remediate the affected area.
7/14/2016	CPWD	Michael Warren		Informed Him of the spill and our plans to remediate the affected area.

OPERATOR COMMENTS:

				<u></u>						
I hereb	I hereby certify all statements made in this form are to the best of my knowledge true, correct, and complete.									
Signed	d:			Print Name:	Clay Harwell					
Title:	Remediation Supervisor	Date:	07/14/2016	Email:	charwell@sandridgeenergy.com					

COA Type	Description	_

	Attachment Check List	>

December

Attachment Check List

Att Doc Num	Name		0
401077678	FORM 19 SUBMITTED		
		·	

Total Attach: 1 Files

COA Tumo

General Comments

User Group	Comment	Comment Date
Environmental	Supplemental report should include map that outlines spill impacted area.	7/19/2016 12:32:39 PM
Environmental	CO wildlife officer, Josh Dilley was onsite to inspect the spills impact on the vegetation.	7/19/2016 12:32:03 PM
Environmental	Confirmation samples will be taken at heaviest area of impacted soil (after visible contamination is removed).	7/19/2016 12:31:54 PM
Environmental	Stained soil on pad should be removed.	7/19/2016 12:31:45 PM
Environmental	Options for treating the spill were discussed with Sandridge Staff; Michael James, Grant Hues, Kellen Mclaughlin. It was agreed that the best path forward was to scoop up any visibly impacted soil, removed and dispose of contaminated weeds and monitor impacts to sagebrush.	7/19/2016 12:31:25 PM
Environmental	On 7/14/2016, COGCC environmental staff Kris Neidel performed an inspection of the spill at the Surprise 2-08H. Oil that was discharged from the well as a fine mist, the mist covered an area approximately 750' from the well to the east. There was no pooling of oil observed. The mist accumulated on the vegetation and appears as a film. Much of the impacted vegetation is invasive weeds.	7/19/2016 11:43:05 AM

Total: 6 comment(s)

COLO STATE OFFICE DENYER

State of Colorado Oil and Gas Conservation Commission

DNR CO

1120 Lincoln Street, Suite 801, Denver, Colorado 80203 Phone: (303) 894-2100 Fax: (303) 894-2109 401082036

Date Received:

07/21/2016

Document Number:

Spill report taken by: NEIDEL, KRIS

Spill/Release Point ID: 446739

SPILL/RELEASE REPORT (SUPPLEMENTAL)

This form is to be submitted by the party responsible for the oil and gas spill or release. Any spill or release which may impact waters of the State must be reported as soon as practicable; any spill over 20 bbls must be reported within 24 hours and all spills over five bbls must be reported within ten days. Submit a Site Investigation and Remediation Workplan (Form 27) when requested by the Director.

Name of Operator	SANDRIDGE EXPLORATION 8	RODUCTION	ILLC	Operator	No: 10598		Phone Numbers
Address: 123 F	ROBERT S KERR AVE		2-64 (32. *265		3811 [2] 18-0-0	Phone:	(405) 5907483
City: OKLAHON	MA CITY	State:	ок	Zip:	73102	Mobile:	(405) 5907483
Contact Person:	John Harwell					Email:	charwell@sandridgeen ergy.com

VA 88				LEASE REPORT ort Doc# 4010776	78		
Initial Report Date:	07/13/2016	Date of Disco		07/12/2016	Spill Type:	Rece n t Spi	id
Spill/Release Point Lo	cation:		_				
Locationof Spill/Relea	ase: QTRQTR	NENE SE	EC 8	TWP 6N	RNG 80W	MERIDIAN	6
Latitude: 40.51118	Longitude:	-106.391600				400	- 29
'Municipality (if within	ı municipal boundarie	es):		County: JACK	SON		
Reference Location:							
Facility Type: WELL		Facility/Loca	ation ID N	o			
		No Existing	Facility or	Location ID No.			
		X Well API No	. (Only if t	the reference facility	is well)05-057	7-06526	
Fluid(s) Spilled/Releas	ed (please answer	Yes/No):					
Was one (1) barrel or	more spilled outside	of berms or sec	ondary cc	intainment?	Yes		
	ment, including wal n primary containmen			onstruction materi	al, must be sufficien	ntly impervious to	o contain
Were Five (5) barrels	or more spilled?	Yes	_				
Estimated Total Spill Vo	olume: use same ran	ges as others for	values				
Estin	mated Oil Spill Volum	ne(bbl): >=5 and	J <100	Estimated Co	ondensate Spill Volu	ıme(bbl):	0
Estimated Flow Ba	ack Fluid Spill Volum	ne(bbl):0		Estimated Produc	ced Water Spill Volu	ıme(bbl):	0
Estimated Other E&	RP Waste Spill Volum	ne(bbl): 0		Estimated Dr	illing Fluid Spill Volu	ıme(bbl):	0
Specify:							
Land Use:							
	NON-CROP LAND		Other(S	Specify):			
Weather Condition:	Clear, Winds W 3-4	10 mph.					
Surface Owner:	FEE		Other(S	Specify):			
Check if impacted or ti	hreatened by spill/F	Release (please	answer Y	es/No to all that ap	ply):		
Waters of the State As defined in COG	Residence/Occ	cupied Structure s	Liv	restock 📋 Pub	olic Byway 🔲 🛮 Sui	rface Water Sup	pply Area

An inspection into the cause of the release at the Surprise 02-8H revealed that the rod packing was leaking which normally would be collected by the "e-pot". However, the e-pot's high level kill switch malfunctioned causing the pumping unit to repeatedly shut down and restart. This allowed the oil that was leaking past the rod packing to completely fill up the e-pot, resulting in oil to exit the top of the pumping tee as a mist. Due to wind speeds between 30-40 mph, the oil mist was carried off-site in an easterly direction and onto private land adjacent to the well site. An area estimated to be approximately 750' x 400' was impacted. A remedial response contractor was dispatched to the area that removed free liquids via a vacuum truck. Impacted vegetation (i.e. sage brush) will be addressed in the near term the results of which will be desrcibed in a supplemental report. The landowners were notified of the spill. The kill switch will be replaced then tested to prevent a recurrence.

List Agencies and Other Parties Notified:

Agency/Party

If less than 1 mile, distance in feet to nearest

Additional Spill Details Not Provided Above:

Contact

Date

OTHER NOTIFICATIONS

<u>Phone</u>

Response

7/12/2016	COGCC		Kris Neidel		970-	8711963	Informed Kris of the spill and our plan remediate the affected area.		plans to	
7/14/2016	CPWD		Michael W	arren	970-2	2556180	Informed Him of the spill and our p remediate the affected area.			
			<u> </u>					tne affected a		<u> </u>
			SPI	LL/RELEASE DE	ETAIL	REPORTS				OLO SE
_#1 Su	pplemental Rep	ort Date:	07/21/2	2016					Zo.	-13-C
FLUIDS		BBL's S	SPILLED	BBL's RECOVE	RED	Unknown				등 등 등
OIL			8		2				<u> </u>	
CONDENSA	TE		0		0				A:	0.00
PRODUCED	WATER		0		0				: :::	
DRILLING FL	_UiD		0		0				#	漏극
FLOW BACK	FLUID		0		0	E				
OTHER E&P	WASTE		0		0					
specify:										
A Form 15 Pi	_	be submi	itted within 3	30 calendar days :				-73-		
,	dia (Check all th			Groundwate	er	Surface	e Water	Dry Dra	inage Fea	ture
Surfac	e Area Impacted	_	. ,	•				h of Impact (fe		
		epth of In	npact (feet B	GS): 0		[Depth of Impa	act (inches BG	S):	
How was exte	ent determined?									
A measuring	wheel and GPS	was used	to determin	e the foot print of the	ne spill					
Soil/Geology	Description:									
The site cons	ists of sage brus	sh and na	tive grasses.							

Water Well

Wetlands

Livestock

3392 None 📋

None 🔳

None X

375

Surface Water

Occupied Building

Springs

None 🔳

None X

None X

<u></u>	CORRECTIVE ACTIONS	
#1 Supplemental Report Date:	07/21/2016	· · · · · · · · · · · · · · · · · · ·
Cause of Spill (Check all that apply)	uman Error 💢 Equipment Failure 🔲 Historical-Unkno	own
	ther (specify)	
Describe Incident & Root Cause (include spec		
The high level kill switch inside the environn	nental pot, located on top of the pumping tee malfunctioned. The pot filled up with oil and then restart. This process repeated until	high level kill switch the pumper shut the
Describe measures taken to prevent the probl	lem(s) from reoccurring:	
An electrical group was brought in to test th restarted and tested.	e kill switch to see why it failed. The kill switch was replaced and	the pumping unit
Volume of Soil Excavated (cubic yards):	0	
Disposition of Excavated Soil (attach docume	ntation)	
	Other (specify)	
Volume of Impacted Ground Water Removed	(bbis): 0	
Volume of Impacted Surface Water Removed		
	REQUEST FOR CLOSURE	
actions will take place under an approved	then impacts have been remediated or when further investigal Form 27. Completed (documentation attached)	ition and corrective
Work proceeding u	under an approved Form 27	
Form 27 Remediat	tion Project No:	
OPERATOR COMMENTS:	······································	
I hereby certify all statements made in this for	rm are to the best of my knowledge true, correct, and complete.	**************************************
Signed:	Print Name: John Harwell	
		ODDOGGU GOM
Title: Remediation Supervisor [Date: 07/21/2016 Email: charwell@sandridg	eenergy.com
COA Type Descrip	otion_	
	Attachment Check List	
Att Doc Num Name		,
401082036 FORM 19 SUBMITTE		
401082049 AERIAL PHOTOGRA	.PH	
Total Attach: 2 Files	Canada Canada anto	
	General Comments	0
User Group Comment		Comment Date
Environmental Sandridge should submit sagebrush and document	a Form 27 workplan outlining the monitoring of the ting the clean-up.	7/28/2016 2:55:02 PM

Environmental	Discussions with the CPW and Sandridge; environmental staff, field staff, management and biologist it was determined that the best method of spill response is as followsremove areas of heavier contamination of oil off of soil, remove vegetation (other than sagebrush) and disposed of as E&P waste.	7/28/2016 1:31:39 PM
Environmental	Sandridge has been in contact with the CO Division of Wildlife regarding the spills impact on sagebrush, related to sage grouse.	7/28/2016 1:31:32 PM
Environmental	Sandridge has been in contact with the two affected surface owners.	7/28/2016 1:01:21 PM

Total: 4 comment(s)

2017 APR 10 NH 10: 34

BUREAU OF LAND MOHT COLO STATE OFFICE BEN FER

State of Colorado **Oil and Gas Conservation Commission**

1120 Lincoln Street, Suite 801, Denver, Colorado 80203 Phone: (303) 894-2100 Fax: (303) 894-2109

Date Received:

07/22/2016

Document Number:

401082894

Spill report taken by: NEIDEL, KRIS

Spill/Release Point ID: 447026

SPILL/RELEASE REPORT (INITIAL)

This form is to be submitted by the party responsible for the oil and gas spill or release. Any spill or release which may impact waters of the State must be reported as soon as practicable; any spill over 20 bbls must be reported within 24 hours and all spills over five bbls must be reported within ten days. Submit a Site Investigation and Remediation Workplan (Form 27) when requested by the Director.

Name of Operator: SANDRIDGE EXPLORATION & PRODUCTION LLC			LLC	Operator	No:	10598		Phone Numbers
Address: 123 F	ROBERT S KERR AVE						Phone:	(405) 590-7483
City: OKLAHON	MA CITY	State:	ОК	Zip:	73102	2	Mobile:	(405) 590-7483
Contact Person:	Clay Harwell						Email:	charwell@sandridgeen egry.com

nitial Report Date:	07/22/2016	D	ate of Discove	r y : 07	7/22/2016	Spill 1	Гуре:	Rece n t Sp	ill
pill/Release Point Loc	ation:						_		
Locationof Spill/Relea	se: QTRQ	TR NW	NE SEC	18	TWP 7N	RNG	80W	MERIDIAN	6
Latitude: 40.584322	2 Longiti	ıde: -1	06.415828						
'Municipality (if within	municipal boun	daries):			County: JACK	SON			
Reference Location:									
Facility Type: WELL		F	Facility/Location	n ID No					
		_ 🔳 1	No Existing Fac	cility or Lo	ocation ID No.				
		⊠ V	Well API No. (C	Only if the	e reference facility	is well)	05-057	7-06536	
						-			
Fiuid(s) Spilled/Releas	ed (please ans	ver Yes/I	No):						
Fluid(s) Spilled/Release Was one (1) barrel or			•	lary cont	tainment?	Yes			
Secondary contains	more spilled ou nent, including	side of be	erms or second	ss of cor			e sufficien	ntly impervious (to contain
Was one (1) barrel or Secondary contains any discharge from	more spilled ou nent, including primary contain	side of be walls & f ment until	erms or second Floor regardles I cleanup occu	ss of cor			e sufficien	itly impervious i	to contain
Was one (1) barrel or Secondary contains any discharge from Were Five (5) barrels	more spilled ou nent, including primary contain or more spilled?	side of be walls & f ment until	erms or second Floor regardles I cleanup occur No	ss of cor			e sufficien	atly impervious (to contain
Was one (1) barrel or Secondary contains any discharge from Were Five (5) barrels Estimated Total Spill Vo	more spilled ou nent, including primary contain or more spilled? lume: use same	side of be walls & f ment until	erms or second floor regardles I cleanup occur No s others for va	ss of cor rs. lues	nstruction mater	ial, must be			to contain
Was one (1) barrel or Secondary contains any discharge from Were Five (5) barrels Estimated Total Spill Vo	more spilled ou nent, including primary contain or more spilled? lume: use same nated Oil Spill Ve	side of be walls & f ment until ranges a	Floor regardles I cleanup occur No s others for va): >0 and <	ss of cor rs. lues	nstruction mater	ial, must be	Spill Volu	ıme(bbl):	
Was one (1) barrel or Secondary contains any discharge from Were Five (5) barrels Estimated Total Spill Vo Estim	more spilled ou ment, including primary contain or more spilled? lume: use same lated Oil Spill Vo	walls & f ment until ranges a blume(bbl	Property of the control of the contr	ss of cor rs. lues	Estimated C	ial, must be ondensate ced Water	Spill Volu Spill Volu	ıme(bbl):	0
Was one (1) barrel or Secondary contains any discharge from Were Five (5) barrels Estimated Total Spill Vo Estim Estimated Flow Ba	more spilled ou ment, including primary contain or more spilled? lume: use same lated Oil Spill Vo	walls & f ment until ranges a blume(bbl	Property of the control of the contr	ss of cor rs. lues	nstruction mater	ial, must be ondensate ced Water	Spill Volu Spill Volu	ıme(bbl):	0
Was one (1) barrel or Secondary contains any discharge from Were Five (5) barrels Estimated Total Spill Vo Estim	more spilled ou ment, including primary contain or more spilled? lume: use same lated Oil Spill Vo	walls & f ment until ranges a blume(bbl	Property of the control of the contr	ss of cor rs. lues	Estimated C	ial, must be ondensate ced Water	Spill Volu Spill Volu	ıme(bbl):	0
Was one (1) barrel or Secondary contains any discharge from Were Five (5) barrels Estimated Total Spill Vo Estim Estimated Flow Ba Estimated Other E& Specify:	more spilled ou nent, including primary contain or more spilled? lume: use same nated Oil Spill Vo nck Fluid Spill Vo P Waste Spill Vo	walls & f ment until ranges a blume(bbl blume(bbl	erms or second regardles of cleanup occur. No so others for value: \(\): \(\) \(\	ss of cor rs. lues	Estimated C Estimated Produ Estimated D	ial, must be ondensate iced Water rilling Fluid	Spill Volu Spill Volu Spill Volu	ıme(bbl): ıme(bbl): ıme(bbl):	0 0
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Was one (1) barrel or Secondary contains any discharge from Were Five (5) barrels Estimated Total Spill Vo Estim Estimated Flow Ba Estimated Other E&I Specify: Land Use: Current Land Use:	more spilled ou nent, including primary contain or more spilled? Jume: use same nated Oil Spill Vock Fluid Spill Vock Fluid Spill Vock P Waste Spill Vock NON-CROP LA	side of be walls & f ment until ranges a blume(bbl blume(bbl	erms or second regardles of cleanup occur. No so others for va or	ss of corrs.	Estimated C Estimated Produ Estimated D ecify):	ial, must be ondensate iced Water rilling Fluid	Spill Volu Spill Volu Spill Volu	ıme(bbl): ıme(bbl): ıme(bbl):	0 0
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Describe what is known about the spill/release event (what happened -- including how it was stopped, contained, and recovered): A oil transport driver was loading at the back of a 150 bbl tank trailer. He was standing near the bulk tank valve waiting on the digital gauge to reach 148 bbl so he could shut the bulk tank valve off. At 147.7 bbl on the gauge, oil started coming out of the vent on the tank trailer. The driver shut the bulk tank valve and the vent tube valve. He then shut down the pump and cleared the lines. About 1 bbl of oil was discharged onto the well site pad. A vacuum truck was dispatched to the site to remove the excess oil off of the ground surface. The affected soil was scraped up and hauled it to the Castle 2-17H20 and placed in a roll off container with E&P waste. List Agencies and Other Parties Notified: OTHER NOTIFICATIONS <u>Date</u> Contact Agency/Party **Phone** Response 7/22/2016 COGCC Kris Neidel 970-871-1963 Micheal James contacted Mr. Kris Neidel and informed him of the spill. **OPERATOR COMMENTS:** I hereby certify all statements made in this form are to the best of my knowledge true, correct, and complete. Signed: Print Name: Clay Harwell Title: Remediation Supervisor Date: 07/22/2016 Email: charwell@sandridgeenegry.com **COA Type Description Attachment Check List Att Doc Num Name** 401082894 FORM 19 SUBMITTED

Total Attach: 1 Files

General Comments

User Group	Comment	Comment Date
Environmental	supplemental report should included a map showing area of spill.	7/28/2016 3:16:37 PM

Total: 1 comment(s)

State of Colorado Oil and Gas Conservation Commission

CO DNR

1120 Lincoln Street, Sulte 801, Denver, Colorado 80203 Phone: (303) 894-2100 Fax: (303) 894-2109 Date Received: 07/22/2016

Spill report taken by:

Document Number:

401082436

Spill/Release Point ID: 446983

NEIDEL. KRIS

SPILL/RELEASE REPORT (INITIAL)

This form is to be submitted by the party responsible for the oil and gas spill or release. Any spill or release which may impact waters of the State must be reported as soon as practicable; any spill over 20 bbls must be reported within 24 hours and all spills over five bbls must be reported within ten days. Submit a Site Investigation and Remediation Workplan (Form 27) when requested by the Director.

Name of Operator	SANDRIDGE EXPLORATION &	PRODUCTION	ırrc	Operator	No: 10598		Phone Numbers
Address: 123 F	ROBERT S KERR AVE				20.000	Phone:	(405) 5907483
City: OKLAHON	MA CITY	State:	ОК	Zip:	73102	Mobile:	(405) 5907483
Contact Person:	Clay Harwell					Email:	charwell@sandridgeen ergy.com

nitial Report Date:	07/22/2016	Date of	Discovery:	07/21/2016	Spill Type:	Recent 5	Spill
Spill/Release Point Lo			-		· · · · · · · · · · · · · · · · · · ·	17. 1 h	
Locationof Spill/Relea		NWNW	SEC 1	7 TWP 7N	RNG 80W	MERIDIAI	N 6
Latitude: 40,58424							20
'Municipality (if within	_			County: JAC	KSON		
Reference Location:							
Facility Type: WELL		☐ Facility	/Location ID	No			
				or Location ID No.			
			-	if the reference facility	v is well) 05-05	7-06542	
		•	, .		· · —		
Fluid(s) Spilled/Releas	ed (please answer	Yes/No):					
		-	r secondary	containment?	Yes		
Was one (1) barrel or Secondary contains	more spilled outside ment, including wal	of berms o	egardiess o	containment?		ntly imperviou	ıs to contair
Was one (1) barrel or Secondary contains any discharge from	r more spilled outside ment, including wal n primary containmen	e of berms o lis & floor re nt until clean	egardiess o			ntly imperviou	ıs to contair
Was one (1) barrel or Secondary contains any discharge from Were Five (5) barrels	r more spilled outside ment, including wal n primary containmen or more spilled?	e of berms o lis & floor re nt until clean Yes	e gardless o up occurs.	f construction mate		ntly imperviou	ıs to contair
Was one (1) barrel or Secondary contains any discharge from Were Five (5) barrels Estimated Total Spill Vo	more spilled outside ment, including wal primary containment or more spilled? olume: use same ran	e of berms o lis & floor re at until clean Yes ges as othe	egardless o up occurs. rs for values	of construction mater	rial, must be sufficien		
Was one (1) barrel or Secondary contains any discharge from Were Five (5) barrels Estimated Total Spill Vo	r more spilled outside ment, including wal n primary containment or more spilled? plume: use same ran mated Oil Spill Volum	e of berms o lis & floor re at until clean Yes ges as other ne(bbl):	egardless o up occurs. rs for values	of construction mater	rial , must be sufficien	ume(bbl):	0
Was one (1) barrel or Secondary contains any discharge from Were Five (5) barrels Estimated Total Spill Vo	more spilled outside ment, including wal primary containment or more spilled? olume: use same ran	e of berms o lis & floor re at until clean Yes ges as other ne(bbl):	egardless o up occurs. rs for values	of construction mater	rial, must be sufficien	ume(bbl):	
Was one (1) barrel or Secondary contains any discharge from Were Five (5) barrels Estimated Total Spill Vo Estim	r more spilled outside ment, including wal n primary containment or more spilled? plume: use same ran mated Oil Spill Volum	e of berms o ils & floor re nt until clean Yes ges as othe ne(bbl):	egardless o up occurs. rs for values	of construction mater Estimated C Estimated Produ	rial , must be sufficien	ume(bbl):	0
Was one (1) barrel or Secondary contains any discharge from Were Five (5) barrels Estimated Total Spill Vo Estim	r more spilled outside ment, including wal o primary containment or more spilled? plume: use same ran mated Oil Spill Volum ack Fluid Spill Volum	e of berms o ils & floor re nt until clean Yes ges as othe ne(bbl):	egardless oup occurs. rs for values 0	of construction mater Estimated C Estimated Produ	rial, must be sufficient Condensate Spill Voluced Water Spill Voluced	ume(bbl):	0
Was one (1) barrel or Secondary contains any discharge from Were Five (5) barrels Estimated Total Spill Vo Estim Estimated Flow Barrels Estimated Other E& Specify: Land Use:	r more spilled outside ment, including wal n primary containment or more spilled? plume: use same rand mated Oil Spill Volum ack Fluid Spill Volum AP Waste Spill Volum	e of berms o ils & floor re nt until clean Yes ges as othe ne(bbl):	egardless oup occurs. rs for values 0	of construction mater Estimated C Estimated Produ	rial, must be sufficient Condensate Spill Voluced Water Spill Voluced	ume(bbl):	0
Was one (1) barrel or Secondary contains any discharge from Were Five (5) barrels Estimated Total Spill Vo Estim Estimated Flow Barrels Estimated Other E& Specify: Land Use:	r more spilled outside ment, including wal o primary containment or more spilled? plume: use same ran mated Oil Spill Volum ack Fluid Spill Volum	e of berms o ils & floor re nt until clean Yes ges as othe ne(bbl):	rs for values 0 0	of construction mater Estimated C Estimated Produ	rial, must be sufficient Condensate Spill Voluced Water Spill Voluced	ume(bbl):	0
Was one (1) barrel or Secondary contains any discharge from Were Five (5) barrels Estimated Total Spill Vo Estim Estimated Flow Ba Estimated Other E& Specify: Land Use: Current Land Use:	r more spilled outside ment, including wal n primary containment or more spilled? plume: use same rand mated Oil Spill Volum ack Fluid Spill Volum AP Waste Spill Volum	ges as other ne(bbl):	egardless oup occurs. rs for values 0 0 0 Othe	ef construction mater Estimated C Estimated Production	rial, must be sufficient Condensate Spill Voluced Water Spill Voluced	ume(bbl):	0
Was one (1) barrel or Secondary contains any discharge from Were Five (5) barrels Estimated Total Spill Vo Estim Estimated Flow Ba Estimated Other E& Specify: Land Use: Current Land Use:	more spilled outside ment, including wall primary containment or more spilled? Jolume: use same rangmated Oil Spill Volume ack Fluid Spill Volume. We Waste Spill Volume. NON-CROP LAND 66 Degrees Clear S	ges as other ne(bbl):	rs for values 0 0 0 Othe	ef construction mater Estimated C Estimated Production	rial, must be sufficient Condensate Spill Voluced Water Spill Voluced	ume(bbl):	0

During drilling operations of the Castle 0780 1-17H20, approximately 108 BBL of drilling mud was lost due to the cellar pump being turned off causing the discharge line that was in the opossum belly to be primed, this created a vacuum and syphoned drilling mud back into the cellar. Of the 108 BBL of drilling mud lost, approximately half filled the cellar with the remainder being released onto the well pad. Upon its discovery, the submersible pump's discharge line was removed from the possum belly to prevent any additional loss of mud. The drilling mud was subsequently removed from the celler and well pad via a vacuum truck and reintroduced back into the active mud system. Clean-up crews removed impacted soil from the well pad and built berms around nearby equipment to prevent the mud from migrating back onto the remediated areas. Once the rig is moved, the crews will remove any remaining impacted soil that exists adjacent to or under the equipment.

List Agencies and Other Parties Notified:

OTHER NOTIFICATIONS

<u>Date</u>	Agency/Party	Contact	<u>Phone</u>	Response
7/21/2016	COGCC	Kris Neidel		Michael James with SandRidge Energy informed Kris of the spill.

OPERATOR COMMENTS:

I hereby	certify all statements mad	le in this form are	to the	best of my kr	nowledge true, c	orrect, and complete.
Signed:					Print Name:	Clay Harwell
Title: F	Remediation Supervisor	Date:		07/22/2016	Email:	charwell@sandridgeenergy.com
COA Ty	pe	Description				

Attachment Check List

Att Doc Num	Name	
401082436	FORM 19 SUBMITTED	

Total Attach: 1 Files

General Comments

<u>User Group</u>	Comment	Comment Date
Environmental	In conversation with Sandridge , it was discovered that; no fluid (mud) left the	7/27/2016
	location, Mud was diesel based.	2:23:08 PM

Total: 1 comment(s)

COLO STATE OFFICE DEN FER

State of Colorado Oil and Gas Conservation Commission

CO DNR

1120 Lincoln Street, Suite 801, Denver, Colorado 80203 Phone: (303) 894-2100 Fax: (303) 894-2109

Residence/Occupied Structure

Waters of the State

As defined in COGCC 100-Series Rules

SPILL/RELEASE REPORT (INITIAL)

This form is to be submitted by the party responsible for the oil and gas spill or release. Any spill or release which may impact waters of the State must be reported as soon as practicable; any spill over 20 bbls must be reported within 24 hours and all spills over five bbls must be reported within ten days. Submit a Site Investigation and Remediation Workplan (Form 27) when requested by the Director.

DNR	Document Number:		
V.Y	401083990		
V	Date Received:		
T _I V	07/26/2016		
	Spill report taken by:		
ay impact and all	NEIDEL, KRIS		

Spill/Release Point ID:

447027

OPERATOR INFORMATON

Name of Operator: SANDRIDGE EXPLORATION & PRODUCTION LLC Opera	ator No: 10598 Phone Numbers
Address: 123 ROBERT S KERR AVE	Phone: (405) 5907483
City: OKLAHOMA CITY State: OK Zip	p: 73102 Mobile: (405) 5907483
Contact Person: Clay Harwell	Email: charwell@sandridgeen ergy.com
INITIAL SPILL/RELEASE RE Initial Spill/Release Report Doc#4	EPORT 401083990
Initial Report Date: 07/26/2016 Date of Discovery: 07/24/2016	Spill Type: Recent Spill
Spill/Release Point Location:	
Locationof Spill/Release: QTRQTR NENE SEC 32 TWP	7N RNG 80W MERIDIAN 6
Latitude: 40.540160 Longitude: -106.391286	
*Municipality (if within municipal boundaries): County	y: JACKSON
Reference Location:	
Facility Type: TANK BATTERY Facility/Location ID No	
□ No Existing Facility or Location ID	O No.
▼ Well API No. (Only if the reference	se facility is well)05-057-06467
Fluid(s) Spilled/Released (please answer Yes/No):	
Was one (1) barrel or more spilled outside of berms or secondary containment?	
Secondary containment, including walls & floor regardless of construction any discharge from primary containment until cleanup occurs.	n material, must be sufficiently impervious to contain
Were Five (5) barrels or more spilled? Yes	
Estimated Total Spill Volume: use same ranges as others for values	
Estimated Oil Spill Volume(bbl): 0 Estimated Oil Spill Volume(bbl): 0	mated Condensate Spill Volume(bbl): 0
Estimated Flow Back Fluid Spill Volume(bbl): >=100 Estimate	ed Produced Water Spill Volume(bbl): 0
Estimated Other E&P Waste Spill Volume(bbl): 0 Estimated Other E&P Waste Spill Volume(bbl): 0	mated Drilling Fluid Spill Volume(bbl): 0
Specify:	
Land Use:	
Current Land Use: OTHER Other(Specify): sw	d with anoffice and laydown yard.
Weather Condition: Clear, light winds 66	
Surface Owner: FEE Other(Specify):	
Check if impacted or threatened by spiil/Release (please answer Yes/No to al	ll that apply):

Livestock 🔲

Public Byway 📋

Surface Water Supply Area

The fluid outlet pump that takes the cleaned flowback water to the injection side grounded out, causing all fluid to go through the reject pump and into the slop tank. The slop / divert tank started at 7ft in the moring and overflowed by 11:30 pm out the top due to all the flowback water being diverted to it. The pump was shut off to the slop tank on the IFG skid for recycling flowback water to inject. A water hauling tanker was dispatched to pick up the 169 bbl that were inside the containment and place back into the flowback water side. The impacted area outside if the containment will be remediated. The spill was confined to the secondary containment except for 1 bbl that made it out. A total of 170 bbl of flowback water was spilled.

List Agencies and Other Parties Notified:

OTHER NOTIFICATIONS

<u>Date</u>	Agency/Party	Contact	<u>Phone</u>	Response
7/25/2016	cogcc	Kris NBeidel		Michael James contacted Kris and informed him of the spill.

OPERATOR COMMENTS:

I here	by certify all statements made in	this form are t	to the	best of my kr	nowledge true, c	orrect, and complete.	
Signed:			Print Name:	Clay Harweli			
Title:	Remediation Supervisor	Date:	= 115	07/26/2016	Email:	charwell@sandridgeenergy.com	

COA Type	Description

Attachment Check List

Att Doc Num	Name
401083990	FORM 19 SUBMITTED

Total Attach: 1 Files

General Comments

<u>User Group</u>	Comment	Comment Date
Environmental	Supplemental report should include a map that outlines area of impact.	7/28/2016 5:34:12 PM
Environmental	In discussion with Sandridge it is understood that the temporary tank with be removed from the facility in August. At the time of tank removal the area under the temporary secondary containment will be assessed.	7/28/2016 5:32:55 PM

Total: 2 comment(s)

CULLARK TO AM 10: 34

BUREAU OF LAND HOME COLO STATE OFFICE BENYER

State of Colorado Oil and Gas Conservation Commission

CO

1120 Lincoln Street, Suite 801, Denver, Colorado 80203 Phone: (303) 894-2100 Fax: (303) 894-2109 401087974

Date Received:

08/02/2016

Spill report taken by: NEIDEL, KRIS

Document Number:

Spill/Release Point ID: 447186

SPILL/RELEASE REPORT (INITIAL)

This form is to be submitted by the party responsible for the oil and gas spill or release. Any spill or release which may impact waters of the State must be reported as soon as practicable; any spill over 20 bbls must be reported within 24 hours and all spills over five bbls must be reported within ten days. Submit a Site Investigation and Remediation Workplan (Form 27) when requested by the Director.

Name of Operator; BONANZA CREEK ENERGY		GY OPERATING CO	PERATING COMPANY LLC		Operator No: 8960		Phone Numbers
Address: 410 1	17TH STREET SUITE #	1400				Phone:	(720) 225-6653
City: DENVER		State:	со	Zip:	80202	Mobile:	()_
Contact Person:	Brian Dodek					Email:	bdodek@bonanzacrk.c om
.,,,		INITIAL SI		EASE REPO	ORT 087974		

Initial Report Date: 08/02/2016	Date of	f Discovery: 0	7/28/2016	Spill Type	Rece	nt Spill
Spill/Release Point Location:						
Locationof Spill/Release: QTRQT	R NESW	SEC 34	TWP 10N	RNG 79	W MERIC	DIAN 6
Latitude: 40.793326 Longitud	e: -106.25	54302				
'Municipality (if within municipal bound	aries):		County: JACKS	SON		
Reference Location:	0					
Facility Type: FLOWLINE	_ 🛱 Facilit	y/Location ID No	3246	548		
	■ No Ex	disting Facility or I	ocation ID No.			
	Well A	API No. (Only if th	e reference facility	is well)05		_
Fluid(s) Spilled/Released (please answ	er Yes/No):					
Was one (1) barrel or more spilled outs	ide of berms	-		Yes	_	
, , , , , , , , , , , , , , , , , , , ,	ide of berms	regardless of co			_ fficiently imperv	rious to contai
Was one (1) barrel or more spilled outs Secondary containment, Including v	ide of berms	regardless of co			_ fficiently imperv	rious to contai
Was one (1) barrel or more spilled outs Secondary containment, Including wany discharge from primary containm Were Five (5) barrels or more spilled?	ide of berms valls & floor vent until clea	regardless of co			_ fficiently imperv	rious to contai
Was one (1) barrel or more spilled outs Secondary containment, Including wany discharge from primary containm Were Five (5) barrels or more spilled?	ide of berms valls & floor vent until clea No anges as oth	regardless of co	nstruction materia	al, must be su	fficiently imperv	
Was one (1) barrel or more spilled outs Secondary containment, Including wany discharge from primary containm Were Five (5) barrels or more spilled? Estimated Total Spill Volume: use same references.	ide of berms valls & floor ent until clea No anges as oth ume(bbl):	regardless of co	nstruction materia	al, must be su	l Volume(bbl):	0
Secondary containment, including wany discharge from primary containn Were Five (5) barrels or more spilled? Estimated Total Spill Volume: use same restimated Oil Spill Vol	ide of berms valls & floor ent until clea No anges as oth ume(bbl): ume(bbl):	regardless of conup occurs. ers for values 0 0	Estimated Produc	al, must be su ondensate Spi ced Water Spi	l Volume(bbl):	0 >=1 and <5
Was one (1) barrel or more spilled outs Secondary containment, Including wany discharge from primary containn Were Five (5) barrels or more spilled? Estimated Total Spill Volume: use same r Estimated Oil Spill Vol Estimated Flow Back Fluid Spill Vol Estimated Other E&P Waste Spill Vol	ide of berms valis & floor lent until clea No anges as oth ume(bbl): ume(bbl): ume(bbl):	ers for values 0 0	Estimated Produc	al, must be su ondensate Spi ced Water Spi	l Volume(bbl): i Volume(bbl):	0 >=1 and <5
Was one (1) barrel or more spilled outs Secondary containment, Including wany discharge from primary containm Were Five (5) barrels or more spilled? Estimated Total Spill Volume: use same r Estimated Oil Spill Vol Estimated Flow Back Fluid Spill Vol Estimated Other E&P Waste Spill Vol Specify:	ide of berms valis & floor lent until clea No anges as oth ume(bbl): ume(bbl): ume(bbl):	ers for values 0 0	Estimated Produc	al, must be su ondensate Spi ced Water Spi	l Volume(bbl): i Volume(bbl):	0 >=1 and <5
Was one (1) barrel or more spilled outs Secondary containment, Including wany discharge from primary containn Were Five (5) barrels or more spilled? Estimated Total Spill Volume: use same r Estimated Oil Spill Vol Estimated Flow Back Fluid Spill Vol Estimated Other E&P Waste Spill Vol	ide of berms valls & floor ent until clea No anges as oth ume(bbl): ume(bbl):	ers for values 0 0	Estimated Co Estimated Produc Estimated Produc	al, must be sur ondensate Spi ced Water Spi illing Fluid Spi	l Volume(bbl): i Volume(bbl):	0 >=1 and <5 0
Was one (1) barrel or more spilled outs Secondary containment, Including wany discharge from primary containm Were Five (5) barrels or more spilled? Estimated Total Spill Volume: use same in Estimated Oil Spill Volume: Estimated Oil Spill Volume: Estimated Spill Volume: Estimated Spill Volume: Estimated Spill Volume: Estimated Other E&P Waste Spill Volume: Estimated Other E&P Waste Spill Volume: Estimated Use:	ide of berms valls & floor nent until clea No anges as oth ume(bbl): ume(bbl):	regardless of conup occurs. ers for values 0 0	Estimated Co Estimated Produc Estimated Produc	al, must be sur ondensate Spi ced Water Spi illing Fluid Spi	I Volume(bbl): I Volume(bbl): Volume(bbl):	0 >=1 and <5 0
Was one (1) barrel or more spilled outs Secondary containment, Including wany discharge from primary containm Were Five (5) barrels or more spilled? Estimated Total Spill Volume: use same r Estimated Oil Spill Vol Estimated Flow Back Fluid Spill Vol Estimated Other E&P Waste Spill Vol Specify: Land Use: Current Land Use: NON-CROP LAN	ide of berms valls & floor nent until clea No anges as oth ume(bbl): ume(bbl):	regardless of conup occurs. ers for values 0 0	Estimated Co Estimated Produc Estimated Dri Decify):	ondensate Spi ced Water Spi illing Fluid Spi	I Volume(bbl): I Volume(bbl): Volume(bbl):	0 >=1 and <5 0

A flowline release of approximately 1.4 bbl of produced water surfaced above an injection flowline adjacent to the McCallum Unit 95 wellhead. The well has been shut-in and assessment of the impact is scheduled once utility locates are cleared. The release was reported on 8/2/16, when the release was determined to be above the 1 bbl reporting threshold. The total estimated release volume will not be known until the assessment is completed. Additional details will be provided in a subsequent Form 19.

List Agencies and Other Parties Notified:

OTHER NOTIFICATIONS

<u>Date</u>	Agency/Party	Contact	<u>Phone</u>	Response	
8/2/2016	cogcc	Kris Neidel	-on file	Notified of release	
8/2/2016	Jackson County	Kent Crowder	-on file	Notified of release	
8/2/2016	BLM	WIS-Online	-on file	Notified of release	

OPERATOR COMMENTS:

I herel	I hereby certify all statements made in this form are to the best of my knowledge true, correct, and complete.								
Signed	d:		Pri	nt Name:	Brian Dodek				
Title:	Env. Supervisor	Date:	08/02/2016	Email:	bdodek@bonanzacrk.com				
	·								

COM Type	Description	

Attachment Check List

Att Doc Num	<u>Name</u>
401087974	FORM 19 SUBMITTED
401087990	TOPOGRAPHIC MAP

Total Attach: 2 Files

General Comments

<u>User Group</u>	Comment	Comment Date
Environmental	Please include a map showing flow path of produced water in supplemental report.	3/5/2016 9:59:38 AM
Environmental	Operator should provide demonstration with flowline rule, 1101.e.upon request for closure.	3/5/2016 9:58:12 AM

Total: 2 comment(s)

BUREAU OF LAND MONT COLO STATE OFFICE DENYER

State of Colorado Oil and Gas Conservation Commission

Public Byway

Surface Water Supply Area

1120 Lincoln Street, Suite 801, Denver, Colorado 80203 Phone (303) 894-2100 Fax: (303) 894-2109

401092766 Date Received: 08/12/2016

Document Number:

Spill report taken by: **NEIDEL. KRIS**

Spill/Release Point ID: 447186

Phone Numbers

SPILL/RELEASE REPORT (SUPPLEMENTAL)

This form is to be submitted by the party responsible for the oil and gas spill or release. Any spill or release which may impact waters of the State must be reported as soon as practicable, any spill over 20 bbls must be reported within 24 hours and all spills over five bbls must be reported within ten days. Submit a Site Investigation and Remediation Workplan (Form 27) when requested by the Director.

OPERATOR INFORMATON

Name of Operator: BC	DNANZA CREEK ENERO	3Y OPERATING CO	MPANY LLC	Operator	No:	8960	Ph	none Numbers
Address: 410 17TH	STREET SUITE#1	1400					Phone: ((720) 225-6653
City: DENVER		State:	СО	Zip:	80202		Mobile: (()_
	ian Dodek						_	bdodek@bonanzacrk.c
L		INITIAL SI	PILL/RELF	EASE REPO	ORT			
		Initial Spill/Rele	ase Report	Doc# 401	087974	-		
Initial Report Date:	08/02/2016	Date of Disco	very: 07	7/28/2016		Spill Typ	oe:	Recent Spill
Spill/Release Point Lo	cation:		-					
Locationof Spill/Relea	ase: QTRQTR	NESW SE	C 34	TWP 10	ON_	RNG	79W M	IERIDIAN 6
Latitude: 40.79332	6 Longitude:	-106.254302				37		S-2-2
'Municipality (if within	— ı municipal boundarie	es):	_	County: .	JACKSO	N		
Reference Location:								-
Facility Type: FLOWI	LINE	X Facility/Locat	tion ID No		324648	3		
		No Existing F	Facility or Lo	ocation ID N	0.	_		
		Well API No.	. (Only if the	ereference f	acility is	well) (05	
Fluid(s) Spilled/Releas	ed (please answer	Yes/No):				_		
Was one (1) barrel or	more spilled outside	of berms or secr	ondary cont	ainment?		Yes		
Secondary contains any discharge from	ment, including wal i n primary containmen	ls & floor regard It until cleanup oc	l less of co n curs.	nstruction n	naterial,	must be s	sufficiently in	npervious to contain
Were Five (5) barrels	or more spilled?	No	_					
Estimated Total Spill Vo	olume: use same rang	ges as others for	values					
Estin	mated Oil Spill Volum	ne(bbl):0		Estima	ted Cond	lensate S	pill Volume(t	bbl):0
Estimated Flow B	ack Fluid Spill Volum	ne(bbl): 0		Estimated F	Produced	l Water S	pili Volume(t	bbl): >=1 and <5
Estimated Other E&	kP Waste Spill Volum	ne(bbl): 0		Estimat	led Drillin	ng Fluid S	pill Volume(l	bbl):0
Specify:			U.					
Land Use:								
Current Land Use:	NON-CROP LAND		Other(Spe	acify):			- G	
Weather Condition:	50 degrees and clea	ar						
Surface Owner:	FEDERAL		Other(Spe	ecify):				
Check if impacted or ti	hreatened by spill/F	Release (please :	answer Yes	s/No to all th	nat apply	/):		

Residence/Occupied Structure Livestock

Waters of the State

As defined in COGCC 100-Series Rules

Describe what	t is known about th	ne spill/release e	event (what happe	ned includ	ing how it	was stopped	d, contained, and re	ecovered):	
wellhead. The reported on 8	e well has been st	nut-in and asses elease was dete	sment of the impa rmined to be abov	ict is schedu e the 1 bbl r	led once ut eportina the	tility locates reshold. The	djacent to the McC are cleared. The re total estimated rel Form 19.	elease was	
List Agencie	s and Other Parti	es Notified:	OTHER !	NOTIFICAT	IONS				
Date	Agency/Party	Contac		Phon	e =	Respons	e	,	
8/2/2016	COGCC	Kris No		-on fil		 	of release		-
8/2/2016	Jackson Cou	nty Kent C	rowder	-on fil	e		of release		
8/2/2016	BLM	WIS-O	nline	-on fil	е	Notified o	of release		
			SPILL/RELEAS	E DETAIL	REPORTS	3			
#1 Su	pplemental Repor			- DETAIL	KEI OKIC				0
FLUIDS		BBL's SPILLED	8/12/2016 BBL's REC	COVEDED	Unknow	_		2017	은별
OIL		DDL 3 OFILLEL	0	OVERED		1		700	0 200
CONDENSA	TE							APR	250
PRODUCED			<u>0</u>	0				0	- 61 - 61 - 61 - 61 - 61 - 61 - 61 - 61
DRILLING FI				0				A	22.5 0 22.5
FLOW BACK	•		0	0				<u>.</u>	MO T
OTHER E&P			0	0				35	- X 50
specify:	WASIE								מר מר
	ease completely co	ontained within b	perms or secondar	rv containme	nt? NC	O Was an	Emergency Pit co	nstructed?	NO
Secondar		luding walls &	floor regardless	of construc		_	sufficiently imperv	-	
A Form 15 P	it Report shall be	submitted wit	hin 30 calendar o	lays after th	e construc	ction of an	emergency pit		
Impacted Me	dia (Check all that	apply) 🕱 So	oil 🔲 Groun	dwater	Surfac	e Water	Dry Draina	age Feature	
Surfac	e Area Impacted:	Length of Impa	act (feet);			Wie	dth of Impact (feet):	:	
		oth of Impact (fe			I		pact (inches BGS):		
How was exte	ent determined?								_
Extent was de	etermined through	visual delineati	on. Labortory ana	llytical result	s will also b	e used to c	onfirm impact exter	ıt.	
Soil/Geology	Description:								
Fluetsch-Tiag	os association								
Depth to Grou	undwater (feet BG	S)43	Nı	umber Water	Wells with	in 1/2 mile r	adius; 0		
If less than 1	mile, distance in fe	eet to nearest	Water Well	3880 No	ne 🔲	Surf	ace Water	_ None 🔀	ā
			Wetlands	Noi	ne 🔀		Springs	None 🛱	Ē)
			Livestock	Nor	ne 🔀	Occupie	d Building	None 🔀	ត
Additional Spi	ll Details Not Prov	ided Above:							

Bonanza has repaired the flowline and completed a succesful flowline integrity test. Assessment of the spill area is still underway and will be reported on a subsequent Form 19. The injection line that was the source of the release was a main injection line and was not related to the McCallum 95. The injection line simply passed by the McCallum 95 location.

		RE	QUEST FOR CLO	SURE		
Spill/Release Repo				ediated or w	then further investigation and corrective	
Basis for Closure:	Corrective	Actions Complete	d (documentation at	tached)		
	0.000	ceeding under an a Remediation Projec	•	-		_
OPERATOR COM	MENTS:			. <u></u>		
·	atements made	in this form are to t			prrect, and complete.	
Signed:				nt Name:	Brian Dodek	-
Title: Env Supervi	sor	Date:	08/12/2016	Email:	bdodek@bonanzacrk.com	
COA Type		Description		-		7

Attachment Check List

Att Doc Num	<u>Name</u>
	FORM 19 SUBMITTED
401092977	SITE MAP

Total Attach: 2 Files

General Comments

User Group	Comment	Comment Date
Environmental	Operator should provide demonstration with flowline rule, 1101.e.upon request for closure.	8/12/2016 3:51:55 PM
	Request for closure should include failure analysis of spill, including methods to prevent a similar spill from occurring.	8/12/2016 3:51:52 PM

Total: 2 comment(s)

State of Colorado Oil and Gas Conservation Commission

CO DNR

1120 Lincoln Street, Suite 801, Denver, Colorado 80203 Phone: (303) 894-2100 Fax: (303) 894-2109 401089367

Date Received:

08/04/2016

Document Number:

Spill report taken by: NEIDEL, KRIS

Spill/Release Point ID: 447238

SPILL/RELEASE REPORT (INITIAL)

This form is to be submitted by the party responsible for the oil and gas spill or release. Any spill or release which may impact waters of the State must be reported as soon as practicable; any spill over 20 bbls must be reported within 24 hours and all spills over five bbls must be reported within ten days. Submit a Site Investigation and Remediation Workplan (Form 27) when requested by the Director.

OPERATOR INFORMATON

Name of Operator	SANDRIDGE EXPLORATION 8	PRODUCTION	LLC	Operator	No:	10598		Phone Numbers
Address: 123 F	ROBERT S KERR AVE			_			Phone:	(405) 590-7383
City: OKLAHON	MA CITY	State:	ок	Zip:	7310	2	Mobile:	(405) 590-7483
Contact Person:	Clay Harwell						Email:	charwell@sandridgeen ergy.com

INITIAL SPILL/RELEASE REPORT

Initial Report Date: 08/04/2016	Date of	Discovery: (08/04/2016	Spill Type:	Recent Sp	oill	
Spill/Release Point Location:	_						_
Locationof Spill/Release: QTR	ROTR NENE	SEC 21	TWP 7N	RNG 80W	MERIDIAN	6	
Latitude: 40.569537 Long	gitude: -106.37	6011		**************************************			0
'Municipality (if within municipal bo	undaries):		County: JACKS	ON		201	010
Reference Location:	,					APR	(A)
Facility Type: WELL	☐ Facilit	y/Location ID No	1			×	2= C
	220	isting Facility or I				0	(a)
	100	_ •	ne reference facility i	e wail) OF OF	7-06531		02
Fluid(s) Spilled/Released (please ar		a 1140. (Omy a a	ie reletence lacinty i	03-03	7-00331	=	(2 m
Was one (1) barrel or more spilled of	-			Vaa		Ç.)	- 6
Secondary containment, includia		•		Yes I must be sufficier	ntly impervious	to con	ain
Secondary containment, including any discharge from primary containment Were Five (5) barrels or more spille	ng walls & floor i ainment until cleai	regardless of co			ntly impervious	to com	ain
any discharge from primary conte Were Five (5) barrels or more spille	ng walls & floor i ainment until clear ed? Yes	regardless of co			ntly impervious	to com	ain
any discharge from primary conta Were Five (5) barrels or more spille Estimated Total Spill Volume: use sar	ng walls & floor i ainment until clear ed? Yes me ranges as other	regardless of co	onstruction materia	il, must be sufficier		to com	ain
any discharge from primary conte Were Five (5) barrels or more spille Estimated Total Spill Volume: use sar Estimated Oil Spill	ng walls & floor in ainment until clear ed? Yes me ranges as other Volume(bbl):	regardless of co	enstruction materia	nl, must be sufficien ndensate Spill Vol	ume(bbl):		ain
any discharge from primary conte Were Five (5) barrels or more spille Estimated Total Spill Volume: use sar Estimated Oil Spill Estimated Flow Back Fluid Spill	ng walls & floor is ainment until clear ed? Yes me ranges as other Volume(bbl):	regardless of co nup occurs. ers for values	Estimated Product	ni, must be sufficient ndensate Spill Volu ed Water Spill Volu	ume(bbl):	0	
any discharge from primary conta Were Five (5) barrels or more spille Estimated Total Spill Volume: use sar Estimated Oil Spill Estimated Flow Back Fluid Spill Estimated Other E&P Waste Spill	ng walls & floor is ainment until clear ed? Yes me ranges as other Volume(bbl):	ers for values	Estimated Product	nl, must be sufficien ndensate Spill Vol	ume(bbl):	0	
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any discharge from primary conte Were Five (5) barrels or more spille Estimated Total Spill Volume: use sar Estimated Oil Spill Estimated Flow Back Fluid Spill Estimated Other E&P Waste Spill Specify: Land Use:	ng walls & floor is ainment until clear ed? Yes me ranges as other Volume(bbl): Volume(bbl): Volume(bbl): LAND	ers for values 0 0	Estimated Co Estimated Product Estimated Drive	ni, must be sufficient ndensate Spill Volu ed Water Spill Volu	ume(bbl): ume(bbl): ume(bbl): >=5	0 0 and <	
any discharge from primary conte Were Five (5) barrels or more spille Estimated Total Spill Volume: use sar Estimated Oil Spill Estimated Flow Back Fluid Spill Estimated Other E&P Waste Spill Specify: Land Use: Current Land Use: NON-CROP I Weather Condition: 63 and cloudy	ng walls & floor is ainment until clear ed? Yes me ranges as other Volume(bbl): Volume(bbl): Volume(bbl): LAND	ers for values 0 0 0 Other(Sp	Estimated Co Estimated Produc Estimated Dri	ni, must be sufficier ndensate Spill Volu ed Water Spill Volu lling Fluid Spill Volu	ume(bbl): ume(bbl): >=5	0 0 and <	
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any discharge from primary conte Were Five (5) barrels or more spille Estimated Total Spill Volume: use sar Estimated Oil Spill Estimated Flow Back Fluid Spill Estimated Other E&P Waste Spill Specify: Land Use: Current Land Use: NON-CROP Weather Condition: 63 and cloudy Surface Owner: FEE Check if impacted or threatened by	ng walls & floor is ainment until clear ed? Yes me ranges as other Volume(bbl): Volume(bbl): Volume(bbl): LAND	oregardless of conup occurs. ers for values 0 0 Other(Sp	Estimated Co Estimated Product Estimated Driestimated Dri	ndensate Spill Volued Water Spill Volueling Fluid	ume(bbl): ume(bbl): >=5	0 0 and <	100

OPERATOR COMMENTS: I hereby certify all statements made in this form are to the best of my knowledge true, correct, and complete. Signed:	based mud	ontrol crew member turne I (WBM) and overflow or ximatly 6 bbl of WBM wa	nto the drilling pad. The	WBM was mixed with dry soil,	low. This allowed the celler to fill up with water , scooped up and deposited into the cuttings
COGCC Kris Neidel 970-871-1963 I notified Kris via an email spill report OPERATOR COMMENTS: I hereby certify all statements made in this form are to the best of my knowledge true, correct, and complete. Signed: Print Name: Clay Harwell Title: Remediation Supervisor Date: 08/04/2016 Email: charwell@sandridgeenergy.com COA Type Description Attachment Check List Att Doc Num Name 401089367 FORM 19 SUBMITTED Total Attach: 1 Files General Comments	List Agend	ies and Other Parties	±11	HER NOTIFICATIONS	
OPERATOR COMMENTS: I hereby certify all statements made in this form are to the best of my knowledge true, correct, and complete. Signed:	Date	Agency/Party	Contact	Phone	Response
I hereby certify all statements made in this form are to the best of my knowledge true, correct, and complete. Signed: Print Name: Clay Harwell Title: Remediation Supervisor Date: 08/04/2016 Email: charwell@sandridgeenergy.com COA Type Description Attachment Check List Att Doc Num Name 401089367 FORM 19 SUBMITTED Total Attach: 1 Files General Comments		cogcc	Kris Neidel	970-871-1963	I notified Kris via an email spill report.
Att Doc Num Name 401089367 FORM 19 SUBMITTED Total Attach: 1 Files General Comments	Signed:			Print Name:	Clay Harwell
401089367 FORM 19 SUBMITTED Total Attach: 1 Files General Comments	Title: Re				
Total Attach: 1 Files General Comments	Title: Re		Description	08/04/2016 Email:	
General Comments	Title: Re	2	Description	08/04/2016 Email:	
	Title: Re COA Type	um Name	Description Attacl	08/04/2016 Email:	
User Group Comment Comment Date	Title: Re COA Type Att Doc N 40108936	um Name 7 FORM 19 S	Description Attacl	08/04/2016 Email:	
	Title: Re COA Type Att Doc N 40108936	um Name 7 FORM 19 S	Description Attacl UBMITTED	08/04/2016 Email:	
	COA Type Att Doc N 40108936 Total Attach	um Name 7 FORM 19 S	Description Attacl UBMITTED	08/04/2016 Email:	

State of Colorado Oil and Gas Conservation Commission

CO

1120 Lincoln Street, Suite 801, Denver, Colorado 80203 Phone: (303) 894-2100 Fax: (303) 894-2109 401088818

Date Received:

08/04/2016

Document Number:

Spill report taken by: NEIDEL, KRIS

Spill/Release Point ID: 447185

SPILL/RELEASE REPORT (INITIAL)

This form is to be submitted by the party responsible for the oil and gas spill or release. Any spill or release which may impact waters of the State must be reported as soon as practicable; any spill over 20 bbls must be reported within 24 hours and all spills over five bbls must be reported within ten days. Submit a Site Investigation and Remediation Workplan (Form 27) when requested by the Director.

Name of Operat	OF: BONANZA CREEK ENE	RGY OPERATING COM	IPANY LLC	Operator	No:	8960		Phone Numbers
Address: 410	17TH STREET SUITE	#1400					Phone:	(720) 225-6653
City: DENVER	२	State:	СО	Zip:	80202		Mobile:	
Contact Person:	Brian Dodek		b				Email:	bdodek@bonanzacrk.c
		INITIAL SP			ORT 088818			

Fluid(s) Spilled/Released (please answer Yes/No): Was one (1) barrel or more spilled outside of berms or secondary containment? Yes Secondary containment, including walls & floor regardless of construction material, must be sufficiently discharge from primary containment until cleanup occurs. Were Five (5) barrels or more spilled? No Estimated Total Spill Volume: use same ranges as others for values Estimated Oil Spill Volume(bbl): 0 Estimated Condensate Spill V Estimated Flow Back Fluid Spill Volume(bbl): 0 Estimated Produced Water Spill V Estimated Other E&P Waste Spill Volume(bbl): 0 Estimated Drilling Fluid Spill V Specify: Land Use: Current Land Use: NON-CROP LAND Other(Specify): Weather Condition: 66 degrees and clear		
Locationof Spill/Release: QTRQTR NENE SEC 13 TWP 9n RNG 79w Latitude: 40.756420 Longitude: -106.208360 'Municipality (if within municipal boundaries): County: JACKSON Reference Location: Facility Type: WELL Facility/Location ID No No Existing Facility or Location ID No. No Existing Facility ID No. No Existing Facility or Location ID No. No Existing Facility ID No. No Existing Faci	Recent Sp	llic
Latitude: 40.756420 Longitude: -106.208360 'Municipality (if within municipal boundaries): County: JACKSON Reference Location: Facility Type: WELL Facility/Location ID No No Existing Facility or Location ID No. Well API No. (Only if the reference facility is well) 05-0 Fluid(s) Spilled/Released (please answer Yes/No): Was one (1) barrel or more spilled outside of berms or secondary containment? Yes Secondary containment, including walls & floor regardless of construction material, must be sufficiently discharge from primary containment until cleanup occurs. Were Five (5) barrels or more spilled? No Estimated Total Spill Volume: use same ranges as others for values Estimated Oil Spill Volume(bbl): 0 Estimated Condensate Spill V Estimated Flow Back Fluid Spill Volume(bbl): 0 Estimated Produced Water Spill V Specify: Land Use: Current Land Use: NON-CROP LAND Other(Specify): Weather Condition: 66 degrees and clear		2
Municipality (if within municipal boundaries): Reference Location: Facility Type: WELL Facility/Location ID No No Existing Facility or Location ID No Well API No. (Only if the reference facility is well) 05-0 Fluid(s) Spilled/Released (please answer Yes/No): Was one (1) barrel or more spilled outside of berms or secondary containment? Yes Secondary containment, including walls & floor regardless of construction material, must be suffice any discharge from primary containment until cleanup occurs. Were Five (5) barrels or more spilled? No Estimated Total Spill Volume: use same ranges as others for values Estimated Total Spill Volume: use same ranges as others for values Estimated Flow Back Fluid Spill Volume(bbl): 0 Estimated Produced Water Spill V Estimated Other E&P Waste Spill Volume(bbl): 0 Estimated Drilling Fluid Spill V Specify: Land Use: Current Land Use: NON-CROP LAND Other(Specify): Weather Condition: 66 degrees and clear	w MERIDIAN	
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Facility Type: WELL Facility/Location ID No No Existing Facility or Location ID No. Well API No. (Only if the reference facility is well) 05-05-05-05-05-05-05-05-05-05-05-05-05-0		- OF OF OF
No Existing Facility or Location ID No.		
Fluid(s) Spilled/Released (please answer Yes/No): Was one (1) barrel or more spilled outside of berms or secondary containment? Secondary containment, including walls & floor regardless of construction material, must be sufficiently discharge from primary containment until cleanup occurs. Were Five (5) barrels or more spilled? No Estimated Total Spill Volume: use same ranges as others for values Estimated Flow Back Fluid Spill Volume(bbl): Estimated Flow Back Fluid Spill Volume(bbl): Estimated Other E&P Waste Spill Volume(bbl): Specify: Land Use: Current Land Use: NON-CROP LAND Other(Specify): Weather Condition: 66 degrees and clear		至 58%
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Secondary containment, including walls & floor regardless of construction material, must be suffice any discharge from primary containment until cleanup occurs. Were Five (5) barrels or more spilled? Estimated Total Spill Volume: use same ranges as others for values Estimated Oil Spill Volume(bbl): Estimated Flow Back Fluid Spill Volume(bbl): Estimated Produced Water Spill V Estimated Other E&P Waste Spill Volume(bbl): D Estimated Drilling Fluid Spill V Specify: Land Use: Current Land Use: NON-CROP LAND Other(Specify): Weather Condition: 66 degrees and clear)KJ
any discharge from primary containment until cleanup occurs. Were Five (5) barrels or more spilled? Estimated Total Spill Volume: use same ranges as others for values Estimated Oil Spill Volume(bbl): Estimated Flow Back Fluid Spill Volume(bbl): Estimated Produced Water Spill V Estimated Other E&P Waste Spill Volume(bbl): D Estimated Produced Water Spill V Specify: Land Use: Current Land Use: NON-CROP LAND Other(Specify): Weather Condition: 66 degrees and clear		
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Estimated Other E&P Waste Spill Volume(bbl): 0 Estimated Drilling Fluid Spill V Specify: Land Use: Current Land Use: NON-CROP LAND Other(Specify): Weather Condition: 66 degrees and clear	Volume(bbl):	0
Specify: Land Use: Current Land Use: NON-CROP LAND Other(Specify): Weather Condition: 66 degrees and clear	Volume(bbl): >=	1 and <5
Current Land Use: NON-CROP LAND Other(Specify):	Volume(bbl):	0
Current Land Use: NON-CROP LAND Other(Specify): Weather Condition: 66 degrees and clear		
Weather Condition: 66 degrees and clear		
	2	
Surface Owner: FEDERAL Other(Specify):		
Check if Impacted or threatened by spill/Release (please answer Yes/No to all that apply):		
_	Surface Water Su	pply Area

Describe what is known about the spill/release event (what happened -- including how it was stopped, contained, and recovered): During an inspection on 8/2/16, personnel observed a leaking wellhead on location. Response personnel repaired the wellhead and stopped the release. Environmental personnel will collect confirmation soil samples once the impacted soil is removed from the area surrounding the wellhead. Bonanza Creek anticipates the release volume is above 1 bbl of produced water. On 8/3/16. Bonanza Creek determined the release likely exceeds the 1 bbl reporting threshold. The release was reported that day. The final release volume will be determined after the excvation is completed. List Agencies and Other Parties Notified: OTHER NOTIFICATIONS Phone Response Agency/Party Contact Date Notified of release 8/3/2016 Kent Crowder on file Jackson County On file on file Notified of release 8/4/2016 BLM 8/3/2016 COGCC Kris Neidel on file Notified of release **OPERATOR COMMENTS:** I hereby certify all statements made in this form are to the best of my knowledge true, correct, and complete. Brian Dodek Signed: Print Name: Title: Env Supervisor Date: 08/04/2016 Email: bdodek@bonanzacrk.com **Description COA Type Attachment Check List**

Att Doc Num	<u>Name</u>
401088818	FORM 19 SUBMITTED
401088912	TOPOGRAPHIC MAP

Total Attach: 2 Files

General Comments

<u>User Group</u>	Comment	Comment Date

Total: 0 comment(s)

State of Colorado Oil and Gas Conservation Commission

CO DNR

1120 Lincoln Street, Suite 801, Denver, Colorado 80203 Phone: (303) 894-2100 Fax: (303) 894-2109 401092845

Date Received:

Document Number:

08/12/2016

Spill report taken by NEIDEL, KRIS

Spill/Release Point ID: 447185

SPILL/RELEASE REPORT (SUPPLEMENTAL)

This form is to be submitted by the party responsible for the oil and gas spill or release. Any spill or release which may impact waters of the State must be reported as soon as practicable; any spill over 20 bbls must be reported within 24 hours and all spills over five bbls must be reported within ten days. Submit a Site Investigation and Remediation Workplan (Form 27) when requested by the Director.

Name of Ope	erator: BONANZA CREEK ENERGY OPER	ATING CO	MPANY LLC	Operator	No:	8960	i	Phone Numbers
Address:	410 17TH STREET SUITE #1400				-1		Phone:	(720) 225-6653
City: DEN	VER	State:	СО	Zip:	80202		Mobile:	
Contact Pers	on: Brian Dodek						Email:	bdodek@bonanzacrk.c om

Initial Report Date:	08/03/2016	Date o	f Discovery	: 07/28/20	16	Spill T	ype:	Recent S	iliq6
Spill/Release Point Lo	ocation:		٠,						
Locationof Spill/Rele	ease: QTRQTR	NENE	SEC	13 TW	P 9n	RNG	79w	MERIDIAN	V 165
Latitude: 40,75642	20 Longitude:	-106.20	08360						
'Municipality (if within	n municipal boundari	es):		Cou	nty: JACKS	SON			20 20
Reference Location:									
Facility Type: WELL		Facili	ty/Location	ID No	_				-
		■ No Ex	kisting Facil	ity or Location	ID No.				AH
		X Well ∕	API No. (On	ly if the refere	nce facility i	s well)	05-05	7-06362	e G
Fluid(s) Spilled/Releas	sed (please answer	Yes/No):							Ċī
Was one (1) barrel o		e of berms Ils & floor	regardless	of construct		Yes I, must be	e sufficier	ntly imperviou	s to cont
Was one (1) barrel o Secondary contain any discharge fron Were Five (5) barrels Estimated Total Spill Ve	r more spilled outside ament, including wa in primary containment s or more spilled? olume: use same rar	e of berms Ils & floor nt until clea No nges as oth	regardiess anup occurs ers for valu	of construct	on materia	il, must be			
Secondary contain any discharge fron Were Five (5) barrels Estimated Total Spill Vo Esti	r more spilled outsidentent, including was in primary containments or more spilled? olume: use same rar mated Oil Spill Volun	e of berms Ils & floor It until clea No Inges as oth	regardless anup occurs ers for valu	es E:	ion materia	ni, must be	Spill Volu	ume(bbl):	0
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stopped the r surrounding t Creek detern	elease. Environmental he wellhead. Bonanza	personnel will collect co Creek anticipates the re exceeds the 1 bbl report	onfirmation soil samples elease volume is above	Response personnel repaired the once the impacted soil is remove by the impacted soil is remove by the firms on 8/3/2 ase was reported that day. The firms of the	d from the area 16, Bonanza
ist Agencie	s and Other Parties No		ER NOTIFICATIONS		
Date	Agency/Party	Contact	Phone	Response	
3/3/2016	Jackson County	Kent Crowder	-on file	Notified of release	
3/4/2016	BLM	On file	-on file	Notified of release	
3/3/2016	COGCC	Kris Neidel	-on file	Notified of release	
	<u>. </u>	SPILL/REL	EASE DETAIL REPO	RTS	
#1 St	pplemental Report Date				
FLUIDS			RECOVERED Unkr	iown	
OIL		0	0		
CONDENSATE			0		
PRODUCED WATER				X i	
DRILLING FLUID		0	0	72	
FLOW BACK FLUID		0	0		
OTHER E&P WASTE			0		
specify:					
Was spill/rek	ease completely contain	ed within berms or seco	ondary containment?	NO Was an Emergency Pit of	onstructed? NO
Secondar	y containment, includir arge from primary conta	g walls & floor regard	lless of construction m	aterial, must be sufficiently impe	rvious to contain
-				struction of an emergency pit	
	dia (Check all that appl		-		nage Feature
-		•		Width of Impact (fee	-
Surface Area Impacted: Length of Impact (feet): Width of Impact (feet): Depth of Impact (feet BGS): Depth of Impact (inches BGS):					
How was ext	ent determined?				
		deligentian During so	accoment leberatory and	alysis will also be used to confirm	the extent
THE EXTERN W	as determined by visual	delineation. During as	sessificiti laboratory and	arysis will also be used to collimit	the extent.
Soil/Geology	Description:				
Fluetsch-Tia	gos association				
Depth to Gro	undwater (feet BGS)	32	Number Water Wells	within 1/2 mile radius: 5	
If less than 1 mile, distance in feet to nearest W		nearest Water We	I 710 None 🔲	Surface Water	None 🔀
		Wetlands	None 🔀	Springs	None X
					

Additional Spill Details Not Provided Above:

Bonanza has repaired the leak and has scheduled assessment of the impact surface soil. Results of the assessment will be submitted in a subsequent Form 19. REQUEST FOR CLOSURE Spill/Release Reports should be closed when impacts have been remediated or when further investigation and corrective actions will take place under an approved Form 27. Basis for Closure: Corrective Actions Completed (documentation attached) Work proceeding under an approved Form 27 Form 27 Remediation Project No: **OPERATOR COMMENTS:** I hereby certify all statements made in this form are to the best of my knowledge true, correct, and complete. Signed: Print Name: Brian Dodek 08/12/2016 Title: Env Supervisor Date: bdodek@bonanzacrk.com Email: **COA Type Description Attachment Check List** Total Attach: 2 Files

Att Doc Num	<u>Name</u>
401092845	FORM 19 SUBMITTED
401092963	SITE MAP

General Comments

<u>User Group</u>	Comment	Comment Date
	request for closure should include failure analysis of spill, including methods to prevent a similar spill from occurring.	8/12/2016 3:49:08 PM

Total: 1 comment(s)

State of Colorado Oil and Gas Conservation Commission

CO

1120 Lincoln Street, Suite 801, Denver, Colorado 80203 Phone: (303) 894-2100 Fax: (303) 894-2109 401092848

Date Received:

08/12/2016

Document Number:

Spill report taken by: FISCHER, ALEX

Spill/Release Point ID: 447296

SPILL/RELEASE REPORT (INITIAL)

This form is to be submitted by the party responsible for the oil and gas spill or release. Any spill or release which may impact waters of the State must be reported as soon as practicable; any spill over 20 bbls must be reported within 24 hours and all spills over five bbls must be reported within ten days. Submit a Site Investigation and Remediation Workplan (Form 27) when requested by the Director.

OPERATOR INFORMATON

Name of Operator: SANDRIDGE EXPLORATION & PRODUCTION LLC			LLC	Operator	No: 10598	Phone Numbers	
Address: 123	ROBERT S KERR AVE					Phone:	(405) 590-7483
City: OKLAHO	MA CITY	State:	ОК	Zip:	73102	Mobile:	(405) 590-7483
Contact Person:	Clay Harwell					Email:	charwell@sandridgeen ergy.com

pill/Release Point Location:	Date of Discovery	08/04/2016	Spill Type: Reco	ent Spill
Locationof Spill/Release: QT	RQTR NWNW SEC	17 TWP 7N	RNG 80W MERII	DIAN 6
Latitude: 40.584656 Lor	ngitude: -106.404444			
'Municipality (if within municipal be	oundaries):	County: JACI	CSON	
eference Location:				
Facility Type: WELL	Facility/Location	ID No		
	No Existing Facil	ity or Location ID No.		
	🔀 Well API No. (On	ly if the reference facilit	y is well) 05-057-06541	
luid(s) Spilled/Released (please a	answer Yes/No):			_
Was one (1) barrel or more spilled	·	rv containment?	Yes	
Secondary containment, includ		-	rial, must be sufficiently imper	vious to contain
any discharge from primary con			, ,,,,	
Were Five (5) barrels or more spill	led? No			
stimated Total Spill Volume: use sa	ame ranges as others for valu	es		
stimated Total Spill Volume: use sa Estimated Oil Spi	-		Condensate Spill Volume(bbl):	0
•	ill Volume(bbl): 0	Estimated (Condensate Spill Volume(bbl): uced Water Spill Volume(bbl):	
Estimated Oil Spi	ill Volume(bbl): 0	Estimated 0 Estimated Prod		>= 1 and <5
Estimated Oil Spi Estimated Flow Back Fluid Spi	ill Volume(bbl): 0	Estimated 0 Estimated Prod	uced Water Spill Volume(bbl):	>= 1 and <5
Estimated Oil Spi Estimated Flow Back Fluid Spi Estimated Other E&P Waste Spi	ill Volume(bbl): 0	Estimated 0 Estimated Prod	uced Water Spill Volume(bbl):	>= 1 and <5
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Estimated Oil Spi Estimated Flow Back Fluid Spi Estimated Other E&P Waste Spi Specify: and Use: Current Land Use: NON-CROF Weather Condition: Clear and 7	ill Volume(bbl): 0 ill Volume(bbl): 0 ill Volume(bbl): 0 P LAND Ott	Estimated 0 Estimated Prod Estimated E her(Specify):	uced Water Spill Volume(bbl): Prilling Fluid Spill Volume(bbl):	>=1 and <5

Describe what is known about the spill/release event (what happened -- including how it was stopped, contained, and recovered):

While moving a frac tank on the Mutual 0780 4-8H to allow for COGCC spacing of the Mutual 7-17H flare, the rear valve handle hung up on the containment which in turn opened the valve. About 2 bbl of produced water was released onto the location. All of the spilled production water and affected soils have been removed and a plug was put in to replaced the valve. The affected soils were placed into the roll off containers on the location and hauled off with other waste. The spill never made it off of the site.

List Agencies and Other Parties Notified:

OTHER NOTIFICATIONS

<u>Date</u>	Agency/Party	Contact	<u>Phone</u>	Response
8/12/2016	COGCC	Kris Neidel		Mr. Michael James contacted Mr. Neidel to infom him of the spill.

OPERATOR COMMENTS:

I hereby certify all statements made in this form are to the best of my knowledge true, correct, and complete.							
Signed	d:			Print Name	Clay Harwell		
Title:	Remediation Supervisor	Date:	08/12/2016	Email:	charwell@sandridgeenergy.com		

COA Type	<u>Description</u>

Attachment Check List

Att Doc Num	<u>Name</u>
401092848	FORM 19 SUBMITTED

Total Attach: 1 Files

General Comments

User Group	Comment	Comment Date
Environmental	Operator to follow up with closure request.	8/15/2016 12:41:50 PM
Environmental	Spill/Release occured August 4, 2016, COGCC was notified August 12, 2016.	8/15/2016 12:39:25 PM

Total: 2 comment(s)

2017 APR 10 AM 10: 35

BUREAU OF LAND HOME COLO STATE OFFICE DENVER 1120 Lincoln Street, Suite 801 Denver, CO 80703 Spill/Release ID# 447296 Document #: 2452984 Date: 10/06/2016

WARNING LETTER # 401124421

10/06/2016

SANDRIDGE EXPLORATION & PRODUCTION LLC (# 10598) Attn: Linda McDonald 123 ROBERT S KERR AVE OKLAHOMA CITY, OK 73102

Imcdonald@sandridgeenergy.com Mutual 0780 4-8H (API# 057-06541) NWNW, 17, 7N, 80W, JACKSON

This Warning Letter is to inform you that SANDRIDGE EXPLORATION & PRODUCTION LLC ("Operator") may be in violation of the rules and regulations of the Colorado Oil and Gas Conservation Commission ("COGCC") and corrective action is required.

The COGCC has reasonable cause to believe that the Operator has committed one or more violations of the Oil and Gas Conservation Act, or of a rule, regulation, or order of the Commission, or of a permit issued by the Commission. The Operator is required to comply with this Warning Letter by the Corrective Action Deadline Date(s) to resolve the alleged violation(s). Failure to do so will result in the issuance of a Notice of Alleged Violation and initiation of enforcement proceedings in which COGCC will seek monetary penalties for the alleged violations pursuant to § 34-60-121, C.R.S. and Rule 523, COGCC Rules of Practice and Procedure, 2 CCR 404-1.

Alleged Violation(s) and Required Corrective Action(s):

906.b Spill Reporting

<u>Description of Alleged Violation</u>: Pursuant to Rule 906.b., Sandridge Exploration & Production LLC (Operator) is required to report spills or releases of one (1) or more barrels of E&P Waste or produced fluids outside of berms or secondary containment to the COGCC within twenty-four (24) hours of discovery and a Form 19, Initial Spill/Release Report, must be submitted to COGCC within 72 hours.

While moving a frac tank on the Mutual #0780 4-8H well, API 057-06541, (Well) on August 4, 2016, approximately two (2) barrels of produced water were released outside of secondary containment. Operator failed to notify the COGCC and submit a Form 19, Initial Spill/Release Report, until August 12, 2016 (Document #401092848), violating Rule 906.b. On September 12, 2016, COGCC staff conducted an inspection of the spill/release area and observed that no remaining impact at the area of the spill was detectable (Document #685100062).





1120 Lincoln Street, Suite 801 Denver, CO 80203

<u>Required Corrective Action</u>: Operator shall submit a Form 4, Sundry Notice, providing of an explanation of the process Operator will use to timely report any spills or releases to the COGCC and comply with Rule 906.b. in the future.

Corrective Action Deadline Date: 11/07/2016

How to Comply with Warning Letter:

Operator shall complete the Required Corrective Action(s) above within the deadline(s) provided. Upon completion of the Corrective Action(s), Operator shall provide notice and evidence of completion to the COGCC staff identified below by the Corrective Action Deadline Date(s):

COGCC Enforcement: Steven Mah

Title: NOAV Specialist

Email: Steven.Mah@state.co.us

Phone Num: (303) 894-2100 x5159

COGCC Representative: Alex Fischer

Title: West Environmental Supervisor

Email: alex.fischer@state.co.us

Phone Num: (303)894-2100x5138

If you have any procedural questions about this Warning Letter, please contact Steven Mah. If you have any technical questions about this Warning Letter, please contact the COGCC Representative identified above.

Failure to Comply with Warning Letter:

If the Operator fails to perform Required Corrective Action(s) on or before the Corrective Action Deadline Date(s) stated above the COGCC will issue a Notice of Alleged Violation and seek penalties pursuant to § 34-60-121, C.R.S. and Rule 523, COGCC Rules of Practice and Procedure, 2 CCR 404-1.

All well data, rules and forms are available on our website at www.colorado.gov/cogcc.

Sincerely.

Alex Fischer

West Environmental Supervisor

(303)894-2100x5138

alex.fischer@state.co.us

Attachments

View Attachments in Imaged Documents on COGCC website http://ogccweblink.state.co.us/ Search by Document Number.

Document Number Description

401125310 WARNING LETTER CERTIFIED MAIL RECEIPT

Total Attach: 1 Files



State of Colorado Oil and Gas Conservation Commission

DNR CO

1120 Lincoln Street, Suite 801, Denver, Colorado 80203 Phone: (303) 894-2100 Fax: (303) 894-2109

08/2

SPILL/RELEASE REPORT (INITIAL)

This form is to be submitted by the party responsible for the oil and gas spill or release. Any spill or release which may impact waters of the State must be reported as soon as practicable; any spill over 20 bbls must be reported within 24 hours and all spills over five bbls must be reported within ten days. Submit a Site Investigation and Remediation Workplan (Form 27) when requested by the Director.

Date Received:

08/24/2016

Spill report taken by:

NEIDEL, KRIS

Spill/Release Point ID:

447431

Document Number:

401098818

OPERATOR INFORMATON

Name of Operator: BONANZA CREEK ENERGY OPERATING COMP	ANY LLC Operator No: 8960 Phone Numbers
Address: 410 17TH STREET SUITE #1400	Phone: (720) 225-6653
City: DENVER State:	CO Zip: 80202 Mobile: ()_
Contact Person: Brian Dodek	Email: bdodek@bonanzacrk.c
INITIAL SPIL	LL/RELEASE REPORT
Initial Spill/Releas	se Report Doc# 401098818
Initial Report Date: 08/24/2016 Date of Discove	ry: 08/23/2016 Spill Type: Recent Spill
Spill/Release Point Location:	
Locationof Spill/Release: QTRQTR SENE SEC	3 TWP 9N RNG 79W MERIDIAN 6
Latitude: 40.782165 Longitude: -106.244577	
'Municipality (if within municipal boundaries):	County: JACKSON
Reference Location:	
Facility Type: FLOWLINE Facility/Locatio	n ID No
XI No Existing Fac	cility or Location ID No.
Well API No. (C	Only if the reference facility is well)
Fluid(s) Spilled/Released (please answer Yes/No):	
Was one (1) barrel or more spilled outside of berms or second	dary containment? Yes
Secondary containment, including walls & floor regardles any discharge from primary containment until cleanup occu	ss of construction material, must be sufficiently impervious to contain
Were Five (5) barrels or more spilled? Yes	
Estimated Total Spill Volume: use same ranges as others for va	lues
Estimated Oil Spill Volume(bbl): 0	Estimated Condensate Spill Volume(bbl): 0
Estimated Flow Back Fluid Spill Volume(bbl): 0	Estimated Produced Water Spill Volume(bbl): >=5 and <100
Estimated Other E&P Waste Spill Volume(bbl): 0	Estimated Drilling Fluid Spill Volume(bbl): 0
Specify:	
Land Use:	
Current Land Use: NON-CROP LAND	Other(Specify):
Weather Condition: 61 degrees , clear	
Surface Owner: FEDERAL 0	Other(Specify):
Check if impacted or threatened by spill/Release (please an	swer Yes/No to all that apply):
Waters of the State Residence/Occupied Structure	Livestock Public Byway Surface Water Supply Area
As defined in COGCC 100-Series Rules	

Describe what	is known about the s	pill/release event (what ha	ppened including how it	was stopped, contained	d, and recovered):	
is estimated th	at approximately 20	bserved in a flowline right of bbl of produced water wer sment details and analytic	e released. Environmenta	al personnel will conduct	t a site assessment as	
List Agencies	and Other Parties I		R NOTIFICATIONS			
Date	Agency/Party	Contact	Phone	Response		
8/24/2016	Jackson County		-on file	Notified of release		
8/24/2016	COGCC	Kris Neidel	-on file	Notified of release		
8/24/2016	Landowner	BLM	-on file	Notified of release		
OPERATOR (COMMENTS:	A Total		-		
I hereby certify	y all statements made	e in this form are to the be	st of my knowledge true, c	orrect, and complete.		
Signed:			Print Name:	Brian Dodek		
Title: Env St	upervisor	Date; 0	8/24/2016 Email:	bdodek@bonanzacr	k.com	
COA Type		Description				

		<u>Attachm</u>	ent Check List			
Att Doc Num	<u>Name</u>					
401098818	FORM 19 SI	JBMITTED				
401098828	01098828 TOPOGRAPHIC MAP					
Total Attach: 2 I	iles		12			
		<u>General</u>	al Comments			
User Group	Comment	· · · · · · · · · · · · · · · · · · ·			Comment Date	
Total: 0 comm	ent(s)					

OUR DEPT OF INTERIOR BUREAU OF LAND HIGHT COLO STATE OFFICE DENVER

Waters of the State

As defined in COGCC 100-Series Rules

Residence/Occupied Structure

State of Colorado Oil and Gas Conservation Commission

1120 Lincoln Street, Suite 801, Denver, Colorado 80203 Phone: (303) 894-2100 Fax: (303) 894-2109

401103318 Date Received:

Phone Numbers

09/02/2016

Document Number:

Splll report taken by: **NEIDEL. KRIS**

Spill/Release Point ID: 447431

SPILL/RELEASE REPORT (SUPPLEMENTAL)

This form is to be submitted by the party responsible for the oil and gas spill or release. Any spill or release which may impact waters of the State must be reported as soon as practicable, any spill over 20 bbls must be reported within 24 hours and all spills over five bbls must be reported within ten days. Submit a Site Investigation and Remediation Workplan (Form 27) when requested by the Director.

OPERATOR INFORMATON

Name of Operator: BONANZA CREEK ENERGY OPERATING COMPANY LLC Operator No:	8960 Phone Numbers
Address: 410 17TH STREET SUITE #1400	Phone: (720).225-6653
City: DENVER State: CO Zip: 80202	2 Mobile: ()_
Contact Person: Brian Dodek	Email: bdodek@bonanzacrk.c
INITIAL SPILL/RELEASE REPORT	
Initial Spill/Release Report Doc# 401098818	3
Initial Report Date: 08/24/2016 Date of Discovery: 08/23/2016	Spill Type: Recent Spill
Spill/Release Point Location:	
Locationof Spill/Release: QTRQTR SENE SEC 3 TWP 9N	RNG 79W MERIDIAN 6
Latitude: 40.782165 Longitude: -106.244577	
'Municipality (if within municipal boundaries): County: JACKS	ON
Reference Location:	
Facility Type: FLOWLINE Facility/Location ID No	_
No Existing Facility or Location ID No.	
Well API No. (Only if the reference facility is	s well)
Fluid(s) Spilled/Released (please answer Yes/No):	
Was one (1) barrel or more spilled outside of berms or secondary containment?	Yes
Secondary containment, including walls & floor regardless of construction material any discharge from primary containment until cleanup occurs.	l, must be sufficiently impervious to contain
Were Five (5) barrels or more spilled? Yes	
Estimated Total Spill Volume: use same ranges as others for values	
·	ndensate Spill Volume(bbl):0
Estimated Flow Back Fluid Spill Volume(bbl): 0 Estimated Produce	ed Water Spill Volume(bbl): >=5 and <100
Estimated Other E&P Waste Spill Volume(bbl): 0 Estimated Drill	ling Fluid Spill Volume(bbl):0
Specify:	
Land Use:	
Weather Condition: 61 degrees , clear	
Surface Owner: FEDERAL Other(Specify):	
Check if impacted or threatened by spill/Release (please answer Yes/No to all that app	oly):

Livestock 🔲

Public Byway

Surface Water Supply Area

Describe what	is known about th	ne spill/release ev	ent (what hap	opened inclu	ding how it v	was stopped,	contained, and	recovered):				
is estimated th	In injection flowline release was observed in a flowline right of way. The injection line and associated well were shut-in immediately. It is estimated that approximately 20 bbl of produced water were released. Environmental personnel will conduct a site assessment as soon as utility locates clear. Assessment details and analytical results will be submitted in a subsequent Form 19.											
	100 0 0	N ATO 1	·						_			
List Agencies	and Other Parti	es Notified:	OTHE	R NOTIFICAT	TIONS							
Date	Agency/Party	Contact		Phor	<u></u>	Response						
8/24/2016	Jackson Cou		owder	-on f	ile	Notified of	release					
8/24/2016	COGCC	Kris Ne	del	-on f	ile	Notified of	release					
8/24/2016	Landowner	BLM		-on f	le	Notified of	release					
			SPILL/RELE	ASE DETAIL	REPORTS	3						
#1 Su	oplemental Repor	t Date: 09/	02/2016					2	- C - C - C - C - C - C - C - C - C - C			
FLUIDS		BBL's SPILLED	BBL's R	RECOVERED	Unknowi	n		7 APR	STOR			
OIL			0	0				20	m () -1			
CONDENSAT	ГЕ		0	0				0				
PRODUCED	WATER	2	0	0	E			<u> </u>	유함적			
DRILLING FL	.UID		0	0					무무			
FLOW BACK	FLUID		0	0				ಭ	ニ쥬뒤진			
OTHER E&P	WASTE		0	0					ויוכ			
specify:								_				
•	ase completely co			•			Emergency Pit o	_	NO			
Secondary any discha	/ containment, inc arge from primary	cluding walls & : containment unti	f ioor regardie I cleanup occi	ess of constru urs.	ction mate	rial, must be a	sufficiently impe	rvious to conta	in			
•	it Report shall be		•		he constru	ction of an e	mergency pit					
Impacted Med	dia (Check all that	t apply) 🔽 So	i 🔲 Gro	oundwater	Surfac	ce Water	Dry Dra	inage Feature	İ			
Surface	e Area Impacted:	Length of Impa	ct (feet):	190		Widt	h of Impact (fee	et): 20	.			
	De	pth of Impact (fee	et BGS):			Depth of Impa	act (inches BGS	3):				
How was exte	ent determined?											
The extent of during remedi	impact was deter iation.	mined by visual o	felineation. In	mpact will be fu	rther define	d by field scre	eening and labo	ratory analysis				
Soil/Geology	Description:						-					
Bosler Sandy	Loam											
Depth to Grou	undwater (feet BG	is) <u>20</u>		Number Wate	er Wells with	nin 1/2 mile ra	dius: 0		\neg			
If less than 1	mile, distance in f	eet to nearest	Water Well	N	one 🔀	Surfa	ce Water	None ⊠				
			Wetlands	N	one 🔀		Springs	None 🔀				
			Livestock	No	one 🔀	Occupied	Building 34	None				
Additional Spi	II Details Not Prov	vided Above:										

BCEOC is currently waiting on utilities to clear to begin assessment and remediation of the spill area. The flowline will be repaired and confirmation soil samples will be collected from the spill footprint. Additional details regarding the release will be submitted in a subsequent Form 19. A number of wells appear west of the location in the DWR database, these are monitoring wells and not water wells.

20		R	EQUEST FOR CLO	DSURE				
Spill/Release Re	eports should be place under an	e closed when impa approved Form 27	icts have been rem	ediated or w	hen further investigation a	ınd corrective		
Basis for Closure	: Correcti	tive Actions Completed (documentation attached)						
	Work pr	oceeding under an a	approved Form 27					
	Form 27	7 Remediation Project	ct No:	_				
OPERATOR CO	MMENTS:				****			
I hereby certify al	l statements mad	le in this form are to	the best of my knowl	edge true, co	prrect, and complete.			
Signed:			Prin	nt Name:	Brian Dodek			
Title: Env Supe	rvisor	Date:	09/02/2016	Email:	bdodek@bonanzacrk.com	1		
COA Type		Description						
			notice to COGCC s r Kris.Neidel@state		eidel at time of collecting s	ioil samples.		
		Atta	chment Chec	k List				
Att Doc Num	<u>Name</u>							
401103318	FORM 19 S	UBMITTED						
401103491	SITE MAP							
Total Attach: 2 File	s							
		<u>G</u>	<u>eneral Comme</u>	<u>nts</u>				
User Group	Comment				Co	mment Date		
Total: 0 commen	t(s)							

State of Colorado Oil and Gas Conservation Commission

CO

1120 Lincoln Street, Suite 801, Denver, Colorado 80203 Phone: (303) 894-2100 Fax: (303) 894-2109 Date Received: 09/19/2016

Splil report taken by:

Document Number:

401114538

Spill/Release Point ID: 447810

NEIDEL, KRIS

SPILL/RELEASE REPORT (INITIAL)

This form is to be submitted by the party responsible for the oil and gas spill or release. Any spill or release which may impact waters of the State must be reported as soon as practicable; any spill over 20 bbls must be reported within 24 hours and all spills over five bbls must be reported within ten days. Submit a Site Investigation and Remediation Workplan (Form 27) when requested by the Director.

OPERATOR INFORMATON

Name of Operator: BONANZA CREEK ENERGY		BONANZA CREEK ENERGY OPE	PERATING COMPANY LLC		Operator No: 8960		8960	Phone Numbers		
Address:	410 1	7TH STREET SUITE #1400				165		Phone:	(720) 225-6653	
City: DE	ENVER		State:	со	Zip:	80202		Mobile:	<u>()</u>	
Contact P	erson:	Brian Dodek						Email:	bdodek@bonanzacrk.c	
			UTIAL OF		AOE DED	\D.T.				

						ELEASE R						
Initial Report Date:	09/19/20)16	Date c	of Discove	 /ery:	09/19/201	6	Spill	Type:	Recent	Spill	
Spill/Release Point L	ocation:								_			
Locationof Spill/Rele	ease:	QTRQTR	SENW	SEC	C _2	TWF	9N	RNG	79W	MERIDIA	N 6	
Latitude: 40.7811	05_	Longitude:	-106.23	36900					A E-Park			
'Municipality (if with	in municip	al boundarir	as):			Coun	ıy: JAC	CKSON				
Reference Location:								*			21	COR
Facility Type: FLOV	VLINE		☐ Facilit	ity/Locati	ion ID N	io						107
			X No E	xisting Fr	acility o	r Location I	D No.				APR	-1: >-1:
			☐ Well /	API No.	(Only if	the referen	ce facil	ity is well)	05-	-	~	THE
Fluid(s) Spilled/Relea	ased (plea	ise answer	Yes/No):								_	-11 T
Was one (1) barrel o				or secor	ndary cr	ontainment'	?	Yes				C)
Secondary contain	inment, inc	cluding wall	lls & floor	regardie	ess of a			erial, must t	oe sufficie	ntly imperviou	ıs to con	ıtain <u></u>
arry discharge troi	m primary	containmen	il untii clea	anup occi	urs.						<u> </u>	(T)
Were Five (5) barrel		· –	Yes		- Juan							30
Estimated Total Spill V Est		se same rang I Spill Volum	-	ners for va • and		Es.	hate	Condensate	- Call Va	1	0	
Estimated Flow I		•	· · —	- 0 and 0						vume(bbl): vlume(bbl): >=		-100
Estimated Other E		•	·	0				Drilling Fluid	• •	` ′—	=5 and <	100
Specify:	AL MOSIO	Брін ублан а	e(טטט <i>).</i>			Lou	Maleu	Drilling i rus	1 obiii voi	ume(ppi).		
Land Use:												•
Current Land Use:	NON-CF	ROP LAND			Other(5	Specify):						
Weather Condition			ar		·				12 10	Hammer		
Surface Owner					Other(f	Specify):						
			/*			_						-
Check if impacted or									·	- 25		
Waters of the State		sidence/Occ	•	ucture 1	LIV	vestock 🔲	P	Public Byway	/ 📗 Su	urface Water S	Supply A	rea
As defined in COC	300 100-0	ienes ruica										

Describe what is known about the spill/release event (what happened - including how it was stopped, contained, and recovered):

During production a flowline release was observed along a flowline ROW. The release occurred on the McCallum Unit 73 flowline. The well was shut-in immediately and 25 bbls of fluid were recovered via vacuum truck. It is currently estimated that 40 bbl of produced water with oil were released. Flowline excavation and repair will occur after utility locates clear. Environmental personnel will collect soil samples from the excavation to confirm the remaining soil is compliant with COGCC Table 910-1 standards. Additional information will be submitted in a subsequent Form 19.

List Agencies and Other Parties Notified:

OTHER NOTIFICATIONS

Date	Agency/Party	Contact	<u>Phone</u>	Response
9/19/2016	Jackson County	Kent Crowder	-on file	Notified of release
9/19/2016	Landowner	BLM	-on file	Notified of release
9/19/2016	COGCC	Kris Neidel	-on file	Notified of release

OPERATOR COMMENTS:

											
I herel	I hereby certify all statements made in this form are to the best of my knowledge true, correct, and complete.										
Signed	d:		Pr	int Name;	Brian Dodek						
Title;	Env Supervisor	Date:	09/19/2016	Email:	bdodek@bonanzacrk.com						

COA Type	Description
	Prior to requesting closure, a Failure analysis, including root causes analysis of the spill should be included. Provide all pipeline integrity data to the COGC Pipeline Supervisor, Mark Schlagenhauf, at (303) 894-2100 x5177 or mark.schlagenhauf@state.co.us

Attachment Check List

Att Doc Num	<u>Name</u>
401114538	FORM 19 SUBMITTED
401114543	TOPOGRAPHIC MAP

Total Attach: 2 Files

General Comments

<u>User Group</u>	Comment	Comment Date
Environmental	Per discussion with Mr. Dodek, spill did NOT impact or come within 800' of any surface monitoring well.	9/20/2016 9:27:50 AM

Total: 1 comment(s)

State of Colorado Oil and Gas Conservation Commission

CO DNR

1120 Lincoln Street, Suite 801, Denver, Colorado 80203 Phone: (303) 894-2100 Fax: (303) 894-2109 401121083

Date Received:
09/29/2016

Document Number:

Spill report taken by: NEIDEL, KRIS

Spill/Release Point ID: 447810

SPILL/RELEASE REPORT (SUPPLEMENTAL)

This form is to be submitted by the party responsible for the oil and gas spill or release. Any spill or release which may impact waters of the State must be reported as soon as practicable; any spill over 20 bbls must be reported within 24 hours and all spills over five bbls must be reported within ten days. Submit a Site Investigation and Remediation Workplan (Form 27) when requested by the Director.

OPERATOR INFORMATON

Name of Operator: B	SONANZA CREEK ENERGY OPERA	ATING COMPANY LLC	Operator No:	8960	Phone Numb	ers	
Address: 410 17T	H STREET SUITE #1400		32	Ph	one: (720) 225-6	365 <u>3</u>	
City: DENVER		State: CO Zip: 80202					
	Brian Dodek			En	Email: bdodek@bonanzac		
		TIAL SPILL/RELE Spill/Release Report		8			
Initial Report Date:	09/19/2016 Date	of Discovery: 09	/19/2016	Spill Type:	Recent Spi	11	
Spill/Release Point Lo	ocation:						
Locationof Spill/Rele	ease: QTRQTR SENW	SEC 2	TWP 9N	RNG 79W	MERIDIAN	6	
Latitude: 40.78110	05 Longitude: -106.	236900					
'Municipality (if withi	n municipal boundaries):		County: JACKS	ON			
Reference Location:			· · · · · · · · · · · · · · · · · · ·			0	
Facility Type: FLOW	/LINE	lity/Location ID No				201	
		Existing Facility or Lo	cation ID No.			S. D. ST	
	☐ Well	API No. (Only if the	reference facility is	s well) 05-	-	33 公司	
Fluid(s) Spilled/Relea	sed (please answer Yes/No):	1			_	0	
Was one (1) barrel o	or more spilled outside of berm	s or secondary conta	ainment?	Yes		至 高宝	
	nment, including walls & floo n primary containment until cle		struction materia	I, must be suffic	iently impervious t	o ntain	
Were Five (5) barrels	s or more spilled? Ye	es				35 HHS	
Estimated Total Spill V	'olume: use same ranges as of	hers for values				282	
Esti	mated Oil Spill Volume(bbl):	>0 and <1	Estimated Cor	ndensate Spill V	olume(bbl):	0	
Estimated Flow E	Back Fluid Spill Volume(bbl): _	0	Estimated Produc	ed Water Spill V	olume(bb!): >=5 a	and <100	
Estimated Other Ed	&P Waste Spill Volume(bbl):	0	Estimated Dril	ling Fluid Spill V	olume(bbl):	0	
Specify:						<u> </u>	
Land Use:							
Current Land Use:	NON-CROP LAND	Other(Spe	cify):		84 <u>- 11 12 </u>		
Weather Condition:	38 degrees and clear						
Surface Owner:	FEDERAL	Other(Spe	ecify):				
Check if impacted or t	threatened by spill/Release (please answer Yes	/No to all that app	ily):			
Waters of the State	Residence/Occupied St	ructure 🔲 Livest	tock Publi	ic Byway 🗐	Surface Water Sup	oply Area	
As defined in COG	GCC 100-Series Rules						

During product well was shut- water with oil soil samples for	ction a flowline release -in immediately and 25 were released. Flowlin	was observed bbls of fluid we be excavation a confirm the rem	along a flowlin ere recovered on and repair will o	e ROW. The via vacuum tr occur after util	release ouck. It is lity locates	vas stopped, contained, and re occurred on the McCallum Unit currently estimated that 40 bbl s clear. Environmental person Table 910-1 standards. Additi	73 flowline. The of produced nel will collect
List Agencies	and Other Parties No	otified:					
			OTHER N	OTIFICATIO	ONS		
<u>Date</u>	Agency/Party	Contact		Phone	,	Response	
9/19/2016	Jackson County	Kent Crow	der	-on file		Notified of release	
9/19/2016	Landowner	BLM		-on file		Notified of release	
9/19/2016	COGCC	Kris Neide	I	-on file		Notified of release	
		SPI	LL/RELEASI	E DETAIL R	EPORTS	6	
#1 Suj	pplemental Report Date	e: 09/29/	2016				
FLUIDS	BBL'	s SPILLED	BBL's REC	OVERED	Unknowr	1	
OIL		0		0	10		
CONDENSA	 TE	0		0			
PRODUCED	WATER	39		39	100		
DRILLING FL	 .DIU.	0		0			
FLOW BACK	FLUID	0		0	- 10		
OTHER E&P	WASTE	0		0			
specify:					F08313		
Was spill/rele	ase completely contain	ed within berm	s or secondar	y containmen	t? <u>N</u> C	Was an Emergency Pit co	nstructed? NO
Secondary any discha	y containment, includi: arge from primary conta	ng walls & floc ainment until cl	or regardiess eanup occurs.	of construct	ion mate	rial, must be sufficiently imperv	ious to contain
A Form 15 Pi	it Report shall be sub	mitted within	30 calendar d	ays after the	constru	ction of an emergency pit	
Impacted Me	dia (Check all that appl	y) ⊠ Soil	Ground	dwater	Surfac	e Water Dry Draina	age Feature
Surface	e Area Impacted: Len	gth of Impact (i	feet): 30			Width of Impact (feet):	5
	Depth of	Impact (feet B	GS): 4			Depth of Impact (inches BGS):	
How was exte	ent determined?			_			
	xtent was determined to delineation will be con					corroded flowline. Assessment	t is not yet
Soil/Geology	Description:						
Bosler sandy	loam						
Depth to Grou	undwater (feet BGS)	20	Nu	mber Water \	Wells with	in 1/2 mile radius: 0	
If less than 1	mile, distance in feet to	nearest W	/ater Well	None	e X	Surface Water	None 🔀
		,	 Vetlands	None	e 💢	Springs	None 🔀
		į	 Livestock	 None	: [X i	Occupied Building 1440	None
Additional Spi	II Details Not Provided	Above:					_

BCEI has repaired the flowline. BCEI has not yet completed the excavation of impacted soil. Assessment will continue the week of 10/3/16. There are no water wells within a mile. All DWR wells are monitoring wells. Additional results will be submitted in a supplemental Form 19. The release location GPS point should be changed to 40.781180, -106.237328.

CORRECTIVE ACTIONS

#1 Suppleme	ntal Report Date:	09/29/2016	 S		7-7-		
Cause of Spill (Che	•	☐ Human Error	- ズ Equipme	nt Failure	Historical-Unknown		
' '	****	Other (specif					
Describe Incident &	Root Cause (incl	Contraction .		lure\			
The cause of the	release was dete			·	The flowline has been repaired	and was	
successfully pres	sure tested.						
Describe measures	taken to prevent	the problem(s) from	reoccurring:				
BCEI is currently be installed in Oc	working the lando tober 2016.	owner (BLM) to insta	all a new poly flowli	ne to avoid f	future releases. It is expected th	e new lir	ne will
Volume of Soil Exca	avated (cubic yard	ls); 25				2017	2.E.C
Disposition of Exca	vated Soil (attach	documentation)	X Offsite Disposal		Onsite Treatment		O RES
		İ	Other (specify)			APR	
Volume of Impacted	Ground Water R	emoved (bbls):	0			0	5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5
Volume of Impacted	Surface Water R	emoved (bbls):	, 0				SEE
		RE	QUEST FOR CLO	OSURE	<u>-</u>	- 3	U.5.25
 Snill/Release Ren	orts should be o	losed when impac	ts have been rem	ediated or v	when further investigation and	ယ္ Correct	338
actions will take	place under an a	pproved Form 27.	to Have been lein	ediated () (when further investigation and	CONTECT	140
Basis for Closure:	Corrective	Actions Completed	l (documentation at	tached)			
	Work proc	eeding under an ap	proved Form 27				
	Form 27 F	Remediation Project	No:	_			
OPERATOR COM	IMENTS:				7.0. to		
			25		, <u>, , , , , , , , , , , , , , , , , , </u>		
I hereby certify all s	statements made	in this form are to th	e best of my knowl	edge true ic	orrect, and complete.		
Signed:			•	nt Name:	Brian Dodek		
Title: Env Superv	risor	Date:	09/29/2016	Email:	bdodek@bonanzacrk.com		
COA Type		Description					
					· ·		
		Attac	hment Chec	k List			
Att Doc Num	<u>Name</u>				^		
401121083	FORM 19 SU	BMITTED					
401121135	SITE MAP						

Total Attach: 2 Files

General Comments

 User Group
 Comment
 Comment Date

 Environmental provied here.
 Lat/Long of spill/discharge point updated in COGCC database based on information provied here.
 10/3/2016 11:50:46 AM

Total: 1 comment(s)

State of Colorado Oil and Gas Conservation Commission

1120 Lincoln Street, Suite 801, Denver, Colorado 80203 Phone: (303) 894-2100 Fax: (303) 894-2109

401160555 Date Received:

12/05/2016

Document Number:

Spill report taken by: **NEIDEL. KRIS** Spill/Release Point ID:

447810

SPILL/RELEASE REPORT (SUPPLEMENTAL)

This form is to be submitted by the party responsible for the oil and gas spill or release. Refer to COGCC Rule 906.b. for reporting requirements of spllls or releases of E&P Waste or produced fluids. Submit a Site Investigation and Remediation Workplan (Form 27) when requested by the Director.

OPERATOR INFORMATON

Name of Operator:	RATING COMPANY LLC		_ Ор	Operator No:		8960	Phone Numbers		
Address: 410 1	7TH STREET SUITE #1400		1					Phone:	(720) 225-6653
City: DENVER		State:	со		Zip:	80202		Mobile:	()_
Contact Person:	Brian Dodek							Email:	bdodek@bonanzacrk.c om

				EASE REPORT t Doc#40111453	38		
Initial Report Date:	09/19/2016	Date of Discov	/ery: 09	9/19/2016	Spill Type:	Recei	nt Spill
Spill/Release Point Lo	ecation:				_		
Locationof Spill/Relea	ase: QTRQTR	SENW SEC	C 2	TWP 9N	RNG 79W	MERID	IAN <u>~</u> 6 ⊖
Latitude: 40.78110	5 Longitude:	-106.236900					
'Municipality (if within	 n municipal boundarie	es):		County: JACKS	SON		P
Reference Location:		******					7 TE
Facility Type: FLOWI	LINE	Facility/Locat	ion ID No	-			
<u>#</u> .		No Existing F	acility or L	ocation ID No.	_		至
		Well API No.	(Only if the	e reference facility	is well) 05-	-	0 01
Fluid(s) Spilled/Releas	sed (please answer				·		- 45
Was one (1) barrel or	r more spilled outside	of berms or seco	ndary cont	tainment?	Yes		72.7
, ,	<u> </u>						
				nstruction materia	al, must be sufficier	itly impervi	ous to contain
any discharge from	n primary containmen	t until cleanup occ		nstruction materi	al, must be sufficier	ntly impervi	ious to contain
any discharge from Were Five (5) barrels	n primary containmen s or more spilled?	t until cleanup occ Yes	curs. -	nstruction materi	al, must be sufficier	ntly impervi	ious to contain
any discharge from Were Five (5) barrels Estimated Total Spill Vo	n primary containmen s or more spilled? olume: use same rang	Yes ges as others for v	curs. - values				
any discharge from Were Five (5) barrels Estimated Total Spill Vo Estin	n primary containmen s or more spilled? plume: use same ranç mated Oil Spill Volum	Yes ges as others for vie(bbl): >0 and	curs. - values	Estimated Co	ondensate Spill Volu	ume(bbl):	0
any discharge from Were Five (5) barrels Estimated Total Spill Vo Estimated Flow Barrels	n primary containmen s or more spilled? colume: use same ranç mated Oil Spill Volum sack Fluid Spill Volum	Yes ges as others for vie(bbl): >0 and e(bbl): 0	curs. - values	Estimated Co	ondensate Spill Volu ced Water Spill Volu	ume(bbl): _ ume(bbl): _	0 >=5 and <100
any discharge from Were Five (5) barrels Estimated Total Spill Vo Estimated Flow Barrels Estimated Other E&	n primary containmen s or more spilled? plume: use same ranç mated Oil Spill Volum	Yes ges as others for vie(bbl): >0 and e(bbl): 0	curs. - values	Estimated Co	ondensate Spill Volu	ume(bbl): _ ume(bbl): _	0
any discharge from Were Five (5) barrels Estimated Total Spill Vo Estim Estimated Flow Barrels Estimated Other E& Specify:	n primary containmen s or more spilled? colume: use same ranç mated Oil Spill Volum sack Fluid Spill Volum	Yes ges as others for vie(bbl): >0 and e(bbl): 0	curs. - values	Estimated Co	ondensate Spill Volu ced Water Spill Volu	ume(bbl): _ ume(bbl): _	0 >=5 and <100
any discharge from Were Five (5) barrels Estimated Total Spill Vo Estim Estimated Flow Barrels Estimated Other E& Specify: Land Use:	n primary containmen s or more spilled? colume: use same rang mated Oil Spill Volum sack Fluid Spill Volum &P Waste Spill Volum	Yes ges as others for vie(bbl): >0 and e(bbl): 0	curs. - values <1	Estimated Co Estimated Produc Estimated Dri	ondensate Spill Volu ced Water Spill Volu lling Fluid Spill Volu	ume(bbl): _ ume(bbl): _	0 >=5 and <100 0
any discharge from Were Five (5) barrels Estimated Total Spill Vo Estim Estimated Flow Barrels Estimated Other E& Specify: Land Use: Current Land Use:	n primary containments or more spilled? colume: use same rang mated Oil Spill Volum tack Fluid Spill Volum AP Waste Spill Volum	yes ges as others for verte(bbl): e(bbl): 0 e(bbl): 0	curs. - values	Estimated Co Estimated Produc Estimated Dri	ondensate Spill Volu ced Water Spill Volu	ume(bbl): _ ume(bbl): _	0 >=5 and <100 0
any discharge from Were Five (5) barrels Estimated Total Spill Vo Estim Estimated Flow Barrels Estimated Other E& Specify: Land Use: Current Land Use: Weather Condition:	n primary containments or more spilled? colume: use same rang mated Oil Spill Volum sack Fluid Spill Volum RP Waste Spill Volum NON-CROP LAND 38 degrees and clear	yes ges as others for verte(bbl): e(bbl): 0 e(bbl): 0	curs. values <1 Other(Spe	Estimated Co Estimated Produc Estimated Dri ecify):	ondensate Spill Volu ced Water Spill Volu lling Fluid Spill Volu	ume(bbl): _ ume(bbl): _	0 >=5 and <100 0
any discharge from Were Five (5) barrels Estimated Total Spill Vo Estim Estimated Flow Barrels Estimated Other E& Specify: Land Use: Current Land Use: Weather Condition: Surface Owner:	n primary containments or more spilled? colume: use same rang mated Oil Spill Volum sack Fluid Spill Volum RP Waste Spill Volum NON-CROP LAND 38 degrees and clear	yes ges as others for v e(bbl): >0 and e(bbl): 0 e(bbl): 0	Curs. values <1 Other(Spe	Estimated Co Estimated Product Estimated Dri ecify):ecify):	ondensate Spill Volu ced Water Spill Volu lling Fluid Spill Volu	ume(bbl): _ ume(bbl): _	0 >=5 and <100 0
any discharge from Were Five (5) barrels Estimated Total Spill Vo Estim Estimated Flow Barrels Estimated Other E& Specify: Land Use: Current Land Use: Weather Condition:	n primary containments or more spilled? colume: use same rangemated Oil Spill Volumetack Fluid Spill Volumetack Fluid Spill Volumetack P Waste P Waste P	ges as others for verbel (bbl): >0 and re(bbl): 0 re(bbl): 0	ours. values <1 Other(Spe	Estimated Co Estimated Product Estimated Dri ecify): ecify): ecify):	ondensate Spill Volu ced Water Spill Volu lling Fluid Spill Volu ply):	ume(bbl): ume(bbl): ume(bbl):	0 >=5 and <100 0
any discharge from Were Five (5) barrels Estimated Total Spill Vo Estim Estimated Flow Barrels Estimated Other E& Specify: Land Use: Current Land Use: Weather Condition: Surface Owner: Check if impacted or the State [n primary containments or more spilled? colume: use same rangemated Oil Spill Volumetack Fluid Spill Volumetack Fluid Spill Volumetack P Waste P Waste P	yes ges as others for v e(bbl): >0 and e(bbl): 0 e(bbl): 0 e(bbl): c	ours. values <1 Other(Spe	Estimated Co Estimated Product Estimated Dri ecify): ecify): ecify):	ondensate Spill Volu ced Water Spill Volu lling Fluid Spill Volu ply):	ume(bbl): ume(bbl): ume(bbl):	0 >=5 and <100 0

During produc well was shut- water with oil v soil samples fr	tion a flowline release in immediately and 25 were released. Flowlin	was observed alor bbls of fluid were e excavation and confirm the remain	ng a flowline F recovered via repair will occ	ROW. The release vacuum truck. ur after utility lo	w it was stopped, containg ase occurred on the McCa It is currently estimated the cates clear. Environment GCC Table 910-1 standar	allum Unit 73 nat 40 bbl of al personne	B flowline. The produced I will collect
List Agencies	and Other Parties No						
		"	OTHER NOT	TIFICATIONS			
<u>Date</u>	Agency/Party	Contact		<u>Phone</u>	Response		
9/19/2016	Jackson County	Kent Crowder		-on file	Notified of release	9	
9/19/2016	Landowner	BLM		-on file	Notified of release	;	
9/19/2016	cogcc	Kris Neidel		-on file	Notified of release	•	
	.!-	SPILL	RELEASE D	ETAIL REPO	RTS		
#1 Sup	pplemental Report Date	e: 12/05/201	6				
FLUIDS			 BBL's RECOV	ERED Unk	nown		
OIL		0		0	100		
CONDENSAT	E =	0		0			
PRODUCED	WATER	39		39			
DRILLING FL	UID —	0		0			
FLOW BACK	FLUID	0		0			
OTHER E&P	WASTE	0		0	m		
specify:					1157-6		
Was spill/relea	ase completely contain	ed within berms o	r secondary c	ontainment?	NO Was an Emerge	ncy Pit cons	tructed? NO
	r containment, includir orge from primary conta			construction n	naterial, must be sufficier	itly impervio	us to contain
-				s after the con	struction of an emergen	cv pit	
	dia (Check all that appl		Groundwa			Dry Drainag	e Feature
•	Area Impacted: Leng				Width of Imp	_	10
	·	Impact (feet BGS		-	Depth of Impact (incl		
How was exte	ent determined?	, ,		***		_	
	etermined via visual del	ineation, field scre	ening and la	noratory analys	is.		
LAIGHT TIEG GE			orinig, arra i				
Soil/Geology [
Bosler sandy	loam						
			393				
Depth to Grou	indwater (feet BGS)	20	Numb	er Water Wells	within 1/2 mile radius:	0	
If less than 1 i	– mile, distance in feet to	nearest Wate	r Well	None 🔀	Surface Water	er	None 🔀
		Wet	lands	 None ⊠ !	Spring		None 🔀
		Live	estock	— None ⊠	Occupied Buildin	g 1440	None 🗐
Additional Spil	ll Details Not Provided	Above:					

Following flowline repair and pressure testing, BCEOC completed excavation of impacted soil. Laboratory analysis of soil samples confirmed that the remaining soil is compliant with COGCC Table 910-1 standards. Impacted soil was transported to the BCEOC land treatment facility. As laboratory analysis confirmed remaining soil is compliant, Bonanza Creek requests a No Further Action determination.

CORRECTIVE ACTIONS

#1 Supplemental Report Date	: 12/05/2016	91-21-		
Cause of Spill (Check all that apply)	Human Error	⊠⊢Equipment Failure	Historical-Unknown	
TI TI TI TI TI TI TI TI TI TI TI TI TI T	Other (specify)			
Describe Incident & Root Cause (inc	lude specific equipment	and point of failure)	· · · · · · · · · · · · · · · · · · ·	
The cause of the release was dete	ermined to be internal co	rrosion on a steel flowline.		
Describe measures taken to prevent	t the problem(s) from rec	occurring:		
BCEI completed installation a new Unit 154 instead of using the prev		iture releases. The new flow	vline was installed to connect to	McCallum
Volume of Soil Excavated (cubic yar	rds): 53	ग		
Disposition of Excavated Soil (attach	n documentation) 🛱 (Offsite Disposal	Onsite Treatment	
		Other (specify)		
Volume of Impacted Ground Water F	Removed (bbls):	0		
Volume of Impacted Surface Water F	Removed (bbls):	0		
	REQU	EST FOR CLOSURE		2 000
Spill/Release Reports should be actions will take place under an a	closed when impacts i	nave been remediated or w	hen further investigation and	corrective
Basis for Closure: X Corrective	e Actions Completed (do	ocumentation attached)		20 FCE
Work pro	ceeding under an appro	ved Form 27		
Form 27	Remediation Project No:			
OPERATOR COMMENTS:				<u> </u>
				N 3170
I hereby certify all statements made	in this form are to the be	est of my knowledge true, co	rrect, and complete.	
Signed:		Print Name:	Brian Dodek	
Title: Env Supervisor	Date:	12/05/2016 Email:	bdodek@bonanzacrk.com	
COA Type	Description			***
	time. Should condition	ns at the site indicate con	e, No Further Action is require taminant concentrations in s r remediation activities may b	oils exceed
	<u>Attachn</u>	nent Check List		

Att Doc Num	<u>Name</u>	
401160555	FORM 19 SUBMITTED	
401160656	OTHER	

Total Attach: 2 Files

User Group Comment Date
Stamp Upon Approval

Total: 0 comment(s)

State of Colorado Oil and Gas Conservation Commission

1120 Lincoln Street, Suite 801, Denver, Colorado 80203 Phone: (303) 894-2100 Fax: (303) 894-2109

Document Number:

401139346

Date Received:

10/31/2016

Spill report taken by: **NEIDEL. KRIS**

Spill/Release Point ID: 448240

SPILL/RELEASE REPORT (INITIAL)

This form is to be submitted by the party responsible for the oil and gas spill or release. Any spill or release which may impact waters of the State must be reported as soon as practicable; any spill over 20 bbls must be reported within 24 hours and all spills over five bbls must be reported within ten days. Submit a Site Investigation and Remediation Workplan (Form 27) when requested by the Director.

OPERATOR INFORMATON

Name of Operator:	SANDRIDGE EXPLORATION & PR	ODUCTION	1 LLC	Operator	No:	10598		Phone Numbers
Address: 123 RO	BERT S KERR AVE						Phone:	(405) 590-7483
City: OKLAHOMA	CITY	State:	ок	Zip:	7310	2	Mobile:	(405) 590-7483
Contact Person: (Clay Harwell		174.5				Email:	charwell@sandridgeen ergy.com

Initial Report Date:	10/31/2016	Date of Discov	ery: 10/28/2016	Spill Type:	Rece n t Spill
Spill/Release Point Lo	ocation:				
Locationof Spill/Rele	ease: QTRQTR	NENE SEC	32 TWP 7N	RNG 80W	MERIDIAN 6
Latitude: 40.54016	60 Longitude:	-106.391286		tal and talk	
'Municipality (if within	n municipal boundarie	es):	County; JA	CKSON	
Reference Location:			•		<u> </u>
Facility Type: WATE SYSTE	R GATHERING EM/LINE	Facility/Locati	on ID No		2017 Z
		No Existing Fa	acility or Location ID No.		APR
		₩ Well API No. (Only if the reference fac	ility is well)05-057-0)6467 = RC
Fluid(s) Spilled/Releas	sed (please answer	Yes/No):			- 121 21 121 21
Was one (1) barrel o	r more spilled outside	of berms or secor	ndary containment?	Yes	
	nment, including wal n primary containmen			terial, must be sufficiently	- 5
Were Five (5) barrels	or more spilled?	Yes			121
Estimated Total Spill Vo	olume; use same ran	ges as others for v	alues		
		ie(bbl): 0	Estimate	d Condensate Spill Volum	ne(bbl): 0
Esti	mated Oil Spill Volum			1,38	
	mated Oil Spill Volum Back Fluid Spill Volum			oduced Water Spill Volum	· · ·
Estimated Flow B	- FX	e(bbl): 0	Estimated Pro	100	ne(bbl): >=100
Estimated Flow B	Back Fluid Spill Volum	e(bbl): 0	Estimated Pro	oduced Water Spill Volum	ne(bbl): >=100
Estimated Flow B	Back Fluid Spill Volum	e(bbl): 0	Estimated Pro	oduced Water Spill Volum	ne(bbl): >=100
Estimated Flow B Estimated Other E& Specify: Land Use:	Back Fluid Spill Volum	ne(bbl): 0	Estimated Pro	oduced Water Spill Volum	ne(bbl): >=100
Estimated Flow B Estimated Other Estimated Other Estimated Other Estimated Use: Current Land Use:	Back Fluid Spill Volum	ne(bbl): 0 ne(bbl): 0	Estimated Pro	oduced Water Spill Volum d Drilling Fluid Spill Volum	ne(bbl): >=100
Estimated Flow B Estimated Other Estimated Other Estimated Other Estimated Use: Current Land Use:	NON-CROP LAND	ne(bbl): 0 ne(bbl): 0 nds	Estimated Pro	oduced Water Spill Volum d Drilling Fluid Spill Volum	ne(bbl): >=100
Estimated Flow B Estimated Other Estimated Other Estimated Other Estimated Other Estimated Use: Current Land Use: Weather Condition: Surface Owner:	NON-CROP LAND 63 clear 21 mph wir	ne(bbl): 0 ne(bbl): 0 nds	Estimated Pro Estimated Other(Specify):	oduced Water Spill Volum	ne(bbl): >=100

and 1 bbls of o hands to opera	il. All of the spill was	contained inside of lined sec	ondary containment. The	nit. The spill was 220 bbls of produced water e unit will be repaired and we will use the flow on site to treat this water and eliminate the
List Agencies	and Other Parties		NOTIFICATIONS	
			NOTIFICATIONS	To the state of th
Date	Agency/Party	Contact	<u>Phone</u>	Response
10/28/2016	COGCC	Mr. Kris Neidel	970-871-1963	Notified Mr. Neidel of the Spill on 10/28/2016
OPERATOR (COMMENTS:			
I hereby certify	y all statements mad	e in this form are to the best o	of my knowledge true, co	orrect, and complete. Clay Harwell
Signed: Title: Remed	y all statements mad	Date: 10/3	Print Name: 31/2016 Email:	Clay Harwell charwell@sandridgeenergy.com
Signed: Title: Remed		Date: 10/3 Description If no soils have been imp	Print Name: 81/2016 Email: pacted and all of spill v	Clay Harwell
Signed: Title: Remed		Date: 10/3 Description If no soils have been impoperator may request 'no been meet. Per rule 906.b(2) and 90	Print Name: 81/2016 Email: Description of spill vote further action of spill vote should to the sh	Clay Harwell charwell@sandridgeenergy.com vas contained in lined containment, the
Signed: Title: Remed		Date: 10/3 Description If no soils have been impoperator may request 'no been meet. Per rule 906.b(2) and 90 government, no notices were serviced in the service of the	Print Name: 81/2016 Email: Display the print of spill were listed. Please report to the print of the print	Clay Harwell charwell@sandridgeenergy.com was contained in lined containment, the , once all of the above conditions have be given to the surface owner and local port these notices on the supplemental
Signed: Title: Remed		Date: 10/3 Description If no soils have been impoperator may request 'no been meet. Per rule 906.b(2) and 90 government, no notices vireport.	Print Name: 81/2016 Email: Deacted and all of spill vote further action' of spill where listed. Please repuld provide final dispositions.	charwell@sandridgeenergy.com vas contained in lined containment, the conce all of the above conditions have be given to the surface owner and local cort these notices on the supplemental esition of the spilled fluid.
Signed: Title: Remed		Date: 10/3 Description If no soils have been impoperator may request 'no been meet. Per rule 906.b(2) and 90 government, no notices verport. Supplemental report shots Supplemental report shots.	Print Name: 81/2016 Email: Deacted and all of spill vote further action' of spill where listed. Please repuld provide final dispositions.	charwell@sandridgeenergy.com vas contained in lined containment, the conce all of the above conditions have be given to the surface owner and local cort these notices on the supplemental esition of the spilled fluid.
Signed: Title: Remed COA Type		Date: 10/3 Description If no soils have been impoperator may request 'no been meet. Per rule 906.b(2) and 90 government, no notices verport. Supplemental report shots Supplemental report shots.	Print Name: B1/2016 Email: Dacted and all of spill volume further action' of spill were listed. Please rejuild provide final disposal di	charwell@sandridgeenergy.com vas contained in lined containment, the conce all of the above conditions have be given to the surface owner and local cort these notices on the supplemental esition of the spilled fluid.
Signed: Title: Remed COA Type	diation Supervisor	Date: 10/3 Description If no soils have been impoperator may request 'no been meet. Per rule 906.b(2) and 90 government, no notices verport. Supplemental report sho Supplemental report sho	Print Name: B1/2016 Email: Dacted and all of spill volume further action' of spill were listed. Please rejuild provide final disposal di	charwell@sandridgeenergy.com vas contained in lined containment, the conce all of the above conditions have be given to the surface owner and local cort these notices on the supplemental esition of the spilled fluid.
Signed:	Name FORM 19 S	Date: 10/3 Description If no soils have been impoperator may request 'no been meet. Per rule 906.b(2) and 90 government, no notices verport. Supplemental report sho Supplemental report sho	Print Name: B1/2016 Email: Dacted and all of spill volume further action' of spill were listed. Please rejuild provide final disposal di	charwell@sandridgeenergy.com vas contained in lined containment, the conce all of the above conditions have be given to the surface owner and local cort these notices on the supplemental esition of the spilled fluid.
Signed: Title: Remed COA Type Att Doc Num 401139346	Name FORM 19 S	Date: 10/3 Description If no soils have been impoperator may request 'no been meet. Per rule 906.b(2) and 90 government, no notices verport. Supplemental report sho Supplemental report sho Attachment	Print Name: B1/2016 Email: Dacted and all of spill volume further action' of spill were listed. Please rejuild provide final disposal di	charwell@sandridgeenergy.com vas contained in lined containment, the conce all of the above conditions have be given to the surface owner and local cort these notices on the supplemental esition of the spilled fluid.

State of Colorado Oil and Gas Conservation Commission

DNR CO

1120 Lincoln Street, Suite 801, Denver, Colorado 80203 Phone: (303) 894-2100 Fax: (303) 894-2109 Date Received:

11/08/2016

Document Number:

401144529

Spill report taken by: NEIDEL, KRIS

Spill/Release Point ID: 448240

SPILL/RELEASE REPORT (SUPPLEMENTAL)

This form is to be submitted by the party responsible for the oil and gas spill or release. Refer to COGCC Rule 906.b. for reporting requirements of spills or releases of E&P Waste or produced fluids. Submit a Site Investigation and Remediation Workplan (Form 27) when requested by the Director.

OPERATOR INFORMATON

Name of Operator: SANDRIDGE EXPLORATION		N & PRODUCTION LLC		Operator No: 10598		Phone Numbers	
Address: 123 F	ROBERT S KERR AVE					Phone:	(405) 590-7483
City: OKLAHON	A CITY	State:	ок	Zip:	73102	Mobile:	(405) 590-7483
Contact Person:	Ciay Harwell					Email:	charwell@sandridgeen ergy.com

		Initial Sp	ill/Release	Repor	t Doc#4	01139346	<u> </u>				
Initial Report Date:	10/31/2016	Date of	Discovery	: 1	0/28/2016		Spill 7	уре:	Recent S	pill	
Spill/Release Point Lo	cation:					-					
Locationof Spill/Rele	ase: QTRQTR	NENE	SEC	32	TWP	7N	RNG	W08	MERIDIAN	۱ 6	
Latitude: 40.54016	0 Longitude:	-106.39	1286								-
'Municipality (if within	 n municipal boundari	es):			County	: JACKS	NC				○ ක
Reference Location:											SE.
Facility Type: WATE	R GATHERING EM/LINE	Facilit	y/Location	ID No			_			APR	10-
	•	■ No Ex	isting Facil	lity or L	ocation ID	No.				0	
		X Well A	Pl No. (Or	aly if th	e reference	a facility is	well)	05-05	7-06467	<u> </u>	## 2
Fluid(s) Spilled/Releas	sed (please answer	Yes/No):									
Was one (1) barrel or	r more spilled outside	of berms	or seconda	ry con	tainment?		Yes			+	200
Secondary contain any discharge from	ment, including wa i n primary containmer	ils & floor intuntil clea	r <mark>egardies</mark> s nup occurs	of co	nstruction	material	, must b	e sufficie	ntly impervious	s to cont	ain
Were Five (5) barrels	or more spilled?	Yes									
Estimated Total Spill Vo	- olume: use same ran	ges as oth	ers for valu	es							
Estir	mated Oil Spill Voluп	ne(bbl):	0		Estin	nated Cor	idensate	Spill Vol	ume(bbl):	0	
Estimated Flow B	ack Fluid Spill Volum	ne(bbl):	0		Estimate	d Produce	ed Water	Spill Vol	ume(bbl):	>=100	
Estimated Other E8	kP Waste Spill Volum	ie(bbl):	0	_	Estin	nated Drill	ing Fluid	Spill Vol	ume(bbl):	0	
Specify:											
Land Use:											
Current Land Use:	NON-CROP LAND		Ot	her(Sp	ecify):						
Weather Condition:	63 clear 21 mph wii	nds				_					
Surface Owner:	FEE		Ot	her(Sp	ecify):			.,			_
Check if impacted or t	hreatened by spill/l	Release (pi	lease ansv	ver Ye	s/No to all	that app	ly):				
Waters of the State	Residence/Oc	cupied Stru	cture 🗇	Live	stock III	Publi	c Byway	□ Sı	urface Water S	Supply Ar	rea
	CC 100-Series Rules	•			and and		J			1100	-

Describe what is	s known about the sp							
and 1 bbls of oi	il. All of the spill was o te/monitor the unit. V	contained insi	ide of lined seco	ondary c	ontainment. Th	unit. The spill was 22 ne unit will be repaired on site to treat this w	l and we will	use the flow
List Agencies a	and Other Parties N	otified:	OTHER N	NOTIFIC	CATIONS			
Date	Agency/Party	Contact		Р	<u>hone</u>	Response		
10/28/2016	COGCC	Mr. Kris	Neidel		70-871-1963	Notified Mr. Neide	el of the Spi	ill on
		SI	PILL/RELEAS	E DET	AIL REPORT	S		4
#1 Supp	plemental Report Dat	e: 11/0	8/2016	-				
FLUIDS	BBL	s SPILLED	BBL's REC	OVERE	D Unknow	'n		
OIL		1	<u> </u>	1				
CONDENSATE	_	0		0				
PRODUCED W	VATER	220)	220				
DRILLING FLU		0	<u> </u>	0	<u></u>			
	71 1 1175	< n	`	0				
FLOW BACK F	-LUIU	0	<i>,</i>					
FLOW BACK F		0		0				
OTHER E&P W				0		-		
OTHER E&P W		0)			S Was an Emerge	ncy Pit consi	tructed? NO
OTHER E&P W specify: Was spill/release Secondary of	VASTE se completely contain	0 ned within ber ng walls & flo	rms or secondar	ry contai	inment? YE	S Was an Emerge	-	
OTHER E&P W specify: Was spill/releas Secondary of any discharg	VASTE se completely contain containment, including ge from primary contains	0 ned within ber ng walls & fl ainment until	rms or secondar loor regardless cleanup occurs.	ry contai	inment? YE		ntly impervio	
OTHER E&P W specify: Was spill/release Secondary of any discharg A Form 15 Pit	VASTE se completely contain containment, including ge from primary contains	0 ned within ber ng walls & fl ainment until mitted within	rms or secondar loor regardless cleanup occurs. n 30 calendar d	ry contai of cons	inment? Yestruction mate	erial, must be sufficier	ntly impervio	us to contain
OTHER E&P W specify: Was spill/releas Secondary of any discharg A Form 15 Pit Impacted Media	vaste se completely contain containment, includia ge from primary contain Report shall be sub	oned within bering walls & flainment untillemitted within	rms or secondar loor regardless cleanup occurs. n 30 calendar d	ry contai of cons	inment? Yestruction mate	erial, must be sufficier	ntly impervious cy pit Dry Drainag	us to contain
OTHER E&P W specify: Was spill/releas Secondary of any discharg A Form 15 Pit Impacted Media	se completely contain containment, including from primary contain Report shall be subtia (Check all that app	oned within berng walls & flainment untillemitted within	rms or secondar loor regardless cleanup occurs. n 30 calendar d Groun	ry contai of cons	inment? Yestruction mate	erial, must be sufficier action of an emergen	ntly imperviol cy pit Dry Drainago pact (feet):	us to contain
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OTHER E&P W specify: Was spill/releas Secondary of any discharg A Form 15 Pit Impacted Media Surface How was exten Due to the fact	se completely contain containment, including from primary containment shall be subtia (Check all that app Area Impacted: Len Depth of that the spill was constem.	ned within ber ng walls & fl. ainment until winitted within ly) Soil gth of Impact	rms or secondar loor regardless cleanup occurs. n 30 calendar d Groun t (feet):	of considerations of considerations of considerations of the consi	inment? Yestruction mate er the constru	erial, must be sufficient action of an emergen ce Water Width of Imp	ntly impervious cy pit Dry Drainage pact (feet): nes BGS):	us to contain e Feature
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OTHER E&P Was specify: Was spill/release Secondary of any discharge A Form 15 Pit Impacted Media Surface Burface Burface Surface Surface Surface Surface Due to the fact containment sy Soil/Geology Depth to Ground Depth to Ground Specific Surface	se completely contain containment, including from primary containment substitution (Check all that apport Area Impacted: Len Depth of that the spill was consistem. Description: that the spill was considered that the spill was considered.	ned within bering walls & flainment until whitted within ly) Soil gth of Impact f Impact (feet	rms or secondar foor regardless cleanup occurs. n 30 calendar d Groun t (feet): BGS): a lined secondar a lined secondar	ry contai of cons days after dwater ry contai	inment? YE struction mate er the constru Surfa ment system nment system Vater Wells wit	erial, must be sufficient ction of an emergent ce Water Width of Import (inched) when the extent of the spill underlying soil was not the sufficient with the extent of the spill was not the sufficient with the extent of the spill was not the sufficient	ntly impervious ccy pit Dry Drainage pact (feet): _ nes BGS): _ was limited cot impacted. 2 er513	to the
OTHER E&P Was specify: Was spill/release Secondary of any discharge A Form 15 Pit Impacted Media Surface How was extended to the fact containment sy Soil/Geology Depth to Groun If less than 1 miles and the specific spe	se completely contain containment, including from primary containment substitution (Check all that apport Area Impacted: Len Depth of that the spill was consistem. Description: that the spill was considered that the spill was considered.	ned within bering walls & flainment until whitted within gh of Impact filmpact (feet dined within a	rms or secondar loor regardless cleanup occurs. n 30 calendar d Groun t (feet): s BGS): a lined secondar a lined secondar Water Well Wetlands	ry contai of cons days aftendwater ry contain ry contain	nment? Yestruction mates er the construction surface Surface nment system, nment system, Vater Wells with None None	erial, must be sufficient ction of an emergent ce Water Width of Imp Depth of Impact (included). The extent of the spill underlying soil was not be sufface Water Spring	ntly impervious ccy pit Dry Drainage pact (feet): _ nes BGS): _ was limited cot impacted. 2 er513	to the
OTHER E&P Was specify: Was spill/release Secondary of any discharge A Form 15 Pit Impacted Media Surface Burface Burf	se completely contain containment, including from primary containment, including from primary containment shall be subtia (Check all that apport Area Impacted: Len Depth on the determined? It determined? It determined? It that the spill was constem. Description: It distance in feet to Details Not Provided	ned within bering walls & flainment until whitted within gh of Impact f Impact (feet dined within a	rms or secondar foor regardless cleanup occurs. n 30 calendar d Groun t (feet): BGS): a lined secondar Nu Water Well Wetlands Livestock	ry contai of cons days after dwater ry contai ry contai	nment? YE struction mate er the constru Surfa nment system vater Wells wit None None	erial, must be sufficient ction of an emergent ce Water Width of Imp Depth of Impact (included). The extent of the spill underlying soil was not be sufface Water Spring	ntly impervious cy pit Dry Drainage pact (feet): _ nes BGS): _ was limited out impacted. 2 er513 is g500	None None None

#1 Supplemen	ntal Report Date:	10/28/20	16					
Cause of Spill (Chec	k all that apply)	Human Err	or	⊠ Equipment	Failure	Historical-Unknown		
		Other (spec	cify)					
Describe Incident & I	Root Cause (incl	ude specific equip	oment an	d point of failur	e)			
A pump associated release produced v						ed causing a storage tank to overru	n and	
Describe measures t	laken to prevent	the problem(s) fro	m reocc	urring:				
The IGF system har remove suspended	as since been re d matter from the	moved from servi produced water	ce theret destined	oy eliminating a for disposal via	ny future a the Vane	failure and will be replaced with a seta injection well.	and filte	er to
Volume of Soil Exca	vated (cubic yard	ls): 0						
Disposition of Excavi	ated Soil (attach	documentation)	Offs	site Disposal	E	Onsite Treatment		
			■ Oth	er (specify)		₩		
Volume of Impacted	Ground Water R	emoved (bbls):		0		· · · · · · · · · · · · · · · · · · ·		
Volume of Impacted	Surface Water R	emoved (bbls);		0				
	-	R	REQUES	ST FOR CLOS	URE			
Spill/Release Repo actions will take pi Basis for Closure:	Iace under an a ▼ Corrective Work proc	closed when imp pproved Form 2: Actions Complet seeding under an Remediation Proje	7. ed (docu approved	mentation attac		vhen further investigation and co	rrectiv 2017 APR 10	U.S. DEPT OF BUREAU OF L
OPERATOR COM	MENTS:					1988	=	SE SE
_							==	1000
I hereby certify all st Signed: Title: Remediation	***	in this form are to		•	ge true, co	orrect, and complete. Clay Harwell charwell@sandridgeenergy.com	1	in —
COA Type		Description	·					
		this time and the conditions at the	e COGC e site ind	C approves to dicate contam	he closur inant con	s that no further action is neces re request. However, should fut acentrations in soils exceeding (mediation activities may be requ	ire COGC	
		Atta	chme	ent Check	List			
Att Doc Num	<u>Name</u>							
401144529	FORM 19 SU	BMITTED						
401144723	SITE MAP							

Att Doc Num	<u>Name</u>
401144529	FORM 19 SUBMITTED
401144723	SITE MAP
401144728	TOPOGRAPHIC MAP
401144730	SITE MAP

Total Attach: 4 Files

User Group Comment Date
Stamp Upon Approval

Total: 0 comment(s)

State of Colorado Oil and Gas Conservation Commission

DNR CO

1120 Lincoln Street, Suite 801, Denver, Colorado 80203 Phone: (303) 894-2100 Fax: (303) 894-2109 Date Received: 12/07/2016

NEIDEL, KRIS
Spill/Release Point ID:
448601

Spill report taken by:

Document Number:

401161777

SPILL/RELEASE REPORT (INITIAL)

This form is to be submitted by the party responsible for the oil and gas spill or release. Refer to COGCC Rule 906.b. for reporting requirements of spills or releases of E&P Waste or produced fluids. Submit a Site Investigation and Remediation Workplan (Form 27) when requested by the Director.

OPERATOR INFORMATON

Name of Operator	SANDRIDGE EXPLORATION & PI	RODUCTION LLC	Operator No: 10598		Phone Numbers
Address: 123 F	ROBERT S KERR AVE	elementina maniar — p	1 -W 5	Phone:	(580) 430-4605
City: OKLAHOM	MA CITY	State: OK	Zip: <u>73102</u>	Mobile:	(405) 590-7483
Contact Person:	Clay Harwell			Email:	charwell@sandridgeen eregy.com

NENE SEC	32	TWP 7N	RNG 80	w Meridi	
	32	TWP 7N	PNG 80	W MEDIDI	1441
400.004000			1110 00	WELLIN	IAN 6
-106.391286					
s):		County: JACK	SON		
		1			20
Facility/Location	n ID No				
No Existing Fac	cility or Loc	ation ID No.			APR
🔀 Well API No. (C	Only if the re	eference facility	is well) 0	5-057-06467	_
res/No):					
of berms or second	dary contair	nment?	Yes		A
		truction materi	al, must be suf	- ficiently impervio	ous to contain
	rs.				10
	•				
	lues	Estimated Co	donasta Cnil	Waluma/bb/\	0
	— ₋		•	99	
· · ·					0
3(DD1): 0		Esumateu on	Illing rivia apii	Volume(DBI).	
	_				
c	Other/Sneci	fu\·			
	Micitobea	197.			
	Ther/Spec				
•	Title! (obee	ıy <i>)-</i>			
	Facility/Locatio No Existing Facility/Locatio No Existing Facility Well API No. (Content of the Incomposite	Facility/Location ID No No Existing Facility or Local Well API No. (Only if the reference in the control of berms or secondary contains a floor regardless of construction of control of co	Facility/Location ID No No Existing Facility or Location ID No. Well API No. (Only if the reference facility /es/No): of berms or secondary containment? s & floor regardless of construction material until cleanup occurs. Yes less as others for values e(bbl): 0	Facility/Location ID No No Existing Facility or Location ID No. Well API No. (Only if the reference facility is well)	Facility/Location ID No No Existing Facility or Location ID No. Well API No. (Only if the reference facility is well) 05-057-06467 Yes/No): of berms or secondary containment? Yes See a floor regardless of construction material, must be sufficiently imperviountil cleanup occurs. Yes Sees as others for values Se(bbl): 0 Estimated Condensate Spill Volume(bbl): Se(bbl): 0 Estimated Produced Water Spill Volume(bbl): Se(bbl): 0 Estimated Drifling Fluid Spill Volume(bbl): Se(bbl): 0 Other(Specify):

	ellef line froze and cract Install heat trace and ins	ked due to extreme cold, causing sulate piping.	production water to	o spill into lined contain	ment. Replace the
11					
				LE PERMITTIE VINE HOUSE COMME	
List Agencie	s and Other Parties N	otified:			
		OTHER NOT	IFICATIONS		
Date Date	Agency/Party	Contact	Phone	Response	
12/6/2016	CGOCC	Kris Nediel	970-871-1963	Was notifed of the	spill vis email.
12/6/2016	Landowner	Jack and Vaneta Haworth	970-723-4614	Was notified by Mr.	Doud SandRidge
12/6/2016	Jackson County Admin	Mr. Kent Crowder	970-723-4660	Was notified by Mr.	Doud SandRidge
PERATOR	COMMENTS:				
I hereby certi	fy all statements made	in this form are to the best of my	knowledge true, c	prrect, and complete.	
_	fy all statements made	in this form are to the best of my	_		
Signed:	ify all statements made	In this form are to the best of my Date: 12/07/201	Print Name:	orrect, and complete. Clay Harwell charwell@sandridge	eeneregy.com
Signed: Title: Reme			Print Name:	Clay Harwell	eeneregy.com
Signed: Title: Reme		Date: 12/07/201	Print Name: 16 Email: be for the wellhe	Clay Harwell charwell@sandridge	reports should be
Signed:		Date: 12/07/201 Description Lat/Long provided appears to for the spill discharge point. P	Print Name: 16 Email: 1 be for the wellher Please provide locations the discrepance of th	charwell@sandridge	reports should be ge point on Il fluid volume and
Signed: Title: Reme		Date: 12/07/201 Description Lat/Long provided appears to for the spill discharge point. P Supplemental Report. Supplemental report should d	Print Name: 16 Email: 1 be for the wellher Please provide locations the discrete the discrete that spill was	charwell@sandridge	reports should be ge point on Il fluid volume and
Signed: Title: Reme	ediation Manager	Date: 12/07/201 Description Lat/Long provided appears to for the spill discharge point. P Supplemental Report. Supplemental report should d recovered volume. It was reported.	Print Name: 16 Email: 1 be for the wellher Please provide locations the discrete the discrete that spill was	charwell@sandridge	reports should be ge point on Il fluid volume and
Signed: Title: Remo	ediation Manager	Date: 12/07/201 Description Lat/Long provided appears to for the spill discharge point. P Supplemental Report. Supplemental report should d recovered volume. It was reported to the spill discharge point.	Print Name: 16 Email: 1 be for the wellher Please provide locations the discrete the discrete that spill was	charwell@sandridge	reports should be ge point on Il fluid volume and
Signed: Title: Reme COA Type Att Doc Num 01161777	n Name	Date: 12/07/201 Description Lat/Long provided appears to for the spill discharge point. P Supplemental Report. Supplemental report should d recovered volume. It was reported to the spill discharge point.	Print Name: 16 Email: 1 be for the wellher Please provide locations the discrete the discrete that spill was	charwell@sandridge	reports should be ge point on Il fluid volume and
Signed: Title: Reme COA Type Att Doc Num 01161777	n Name	Date: 12/07/201 Description Lat/Long provided appears to for the spill discharge point. P Supplemental Report. Supplemental report should d recovered volume. It was reported to the spill discharge point. P Supplemental report should do recovered volume. It was reported to the spill discharge point.	Print Name: 16 Email: 1 be for the wellhouse provide location or the discrete the discrete that spill was check List	charwell@sandridge	reports should be ge point on Il fluid volume and
Signed: Title: Reme	n Name	Date: 12/07/201 Description Lat/Long provided appears to for the spill discharge point. P Supplemental Report. Supplemental report should d recovered volume. It was reported to the spill discharge point.	Print Name: 16 Email: 1 be for the wellhouse provide location or the discrete the discrete that spill was check List	charwell@sandridge	reports should be ge point on Il fluid volume and

<u>User Group</u>	Comment	Comment Date
Environmental	Spill was reported within 24 hours via email to COGCC.	12/07/2016

Total: 1 comment(s)

As defined in COGCC 100-Series Rules

State of Colorado Oil and Gas Conservation Commission

DNR CO

1120 Lincoln Street, Suite 801, Denver, Colorado 80203 Phone: (303) 894-2100 Fax: (303) 894-2109

SPILL/RELEASE REPORT (SUPPLEMENTAL)

This form is to be submitted by the party responsible for the oil and gas spill or release. Refer to COGCC Rule 906.b. for reporting requirements of spills or releases of E&P Waste or produced fluids. Submit a Site Investigation and Remediation Workplan (Form 27) when requested by the Director.

Document Number:

401166350

Date Received:

12/13/2016

Spill report taken by:
NEIDEL. KRIS

Spill/Release Point ID:

<u>448601</u>

OPERATOR INFORMATON

Name of Operator: SANDRIDGE EXPLORATION & PROD	UCTION LLC	Operator No:	10598	Phone	Numbers
Address: 123 ROBERT S KERR AVE				Phone: (580) 430-4605
City: OKLAHOMA CITY S	state: OK	Zip: 7310	2	Mobile: (405) 590-7483
Contact Person: Clay Harwell				Email: <u>char</u> ergy	well@sandridgeen .com
		EASE REPORT t Doc# 40116177	7		
Initial Report Date: 12/06/2016 Date of	Discovery: 1	2/06/2016	Spill Typ	e: Rec	ent Spill
Spill/Release Point Location:					
Locationof Spill/Release: QTRQTR NENE	SEC 32	TWP 7N	RNG 8	0W MERII	DIAN 6
Latitude: 40.540160 Longitude: -106.39	1286				-
'Municipality (if within municipal boundaries):		County: JACKS	ON		Ω
Reference Location:					201
	y/Location ID No				A STA
□ No Ex	isting Facility or L	ocation ID No.	_		APR
⊠ Well A	PI No. (Only if th	e reference facility i	s well)	05-057-06467	
Fluid(s) Spilled/Released (please answer Yes/No):					P OX
Was one (1) barrel or more spilled outside of berms	or secondary con	tainment?	Yes		
Secondary containment, including walls & floor any discharge from primary containment until clea	regardless of co	nstruction materia	l, must be s	ufficiently imper	№ 高量器
Were Five (5) barrels or more spilled? Yes					(35)
Estimated Total Spill Volume: use same ranges as other	ers for values				
Estimated Oil Spill Volume(bbl):	0	Estimated Co	ndensate Sp	oill Volume(bbl):	0
Estimated Flow Back Fluid Spill Volume(bbl):	0	Estimated Produc	ed Water Sp	oill Volume(bbl):	>=5 and <100
Estimated Other E&P Waste Spill Volume(bbl):	0	Estimated Dril	ling Fluid Sp	oill Volume(bbl):	0
Specify:					
Land Use:					
Current Land Use: NON-CROP LAND	Other(Sp	ecify):			
Weather Condition: -20 F PARTLY CLOUDY					
Surface Owner: FEE	Other(Sp	ecify):		0-	
Check if impacted or threatened by spill/Release (p	ease answer Ye	s/No to all that app	oly):		
Waters of the State Residence/Occupied Stru	cture 🔲 Live	stock 🔲 - Dubl	ic Byway 🔲	Surface West	tor Supply Arga

escribe what	is known about the spil	l/release event	(what happene	d includi	ng how it v	vas stopped, contained,	and reco	vered):
	ief line froze and cracke stall heat trace and inse		me cold, causin	g producti	on water to	spill into lined containm	ent. Rep	place the
let Agencies	and Other Parties No	tifind:						
ist Agencies	and Other Parties No	illieu.	OTUED NO	TIEICATI	ONC			
		-1	OTHER NO			T-		
Date	Agency/Party	Contact		Phone		Response	***	**
2/6/2016	CGOCC	Kris Nediel	11.7	970-8	71-1963	Was notifed of the sp	ill Vis er	nail.
2/6/2016	Landowner	Jack and V	aneta Haworti	1 970-7	23-4614	Was notified by Mr. E	oud Sa	ndRidge
2/6/2016	Jackson County Admin	Mr. Kent C	owder	970-7	23-4660	Was notified by Mr. D	oud Sa	ndRidge
		SPII	L/RELEASE	DETAIL F	REPORTS			
#1 Sup	pplemental Report Date	: 12/13/2	016				_	
FLUIDS	BBL's	SPILLED	BBL's RECO	/ERED	Unknow	1		
OIL		0		0				
CONDENSAT	TE	0		0				
PRODUCED	WATER	25		25				
DRILLING FL	UID	0		0				
LOW BACK	FLUID	0		0				
OTHER E&P	WASTE	0		0				
pecify:						·		
Vas spill/relea	ase completely contain	ed within berm:	or secondary	containme	nt? YE	S Was an Emergency	Pit const	ructed? NO
	r containment, includin orge from primary conta			construc	tion mate	rial, must be sufficiently i	mperviol	us to contain
A Form 15 Pir	t Report shall be subr	nitted within 3	0 calendar day	s after th	e constru	ction of an emergency	oit	
mpacted Med	dia (Check all that apply	/) Soil	Groundw	ater	☐ Surfac	e Water Dry	Drainage	e Feature
Surface	Area Impacted: Leng	th of Impact (fe	eet):	_		Width of Impact	(feet): _	
	Depth of	Impact (feet Bo	3S):	_		Depth of Impact (inches	BGS): _	
łow was exte	ent determined?							
Oue to the fac containment s		ined within a lir	ned secondary o	containme	nt system,	the extent of the spill was	s limited	to the
Soil/Geology [Description:							
		ine within a line	ed secondary co	ntainment	system, u	nderlying soil was not im	pacted.	<u>-</u>
			N.					
Depth to Grou	indwater (feet BGS)	17	Num	ber Water	Wells with	in 1/2 mile radius:	2	
f less than 1 r	mile, distance in feet to	nearest W	ater Well	500 No	ne 🔳	Surface Water _	513	Nопе 🔲
		V	/etlands	Noi	ne 🔀	Springs		None 🔀
		t	ivestock1	000 Nor	ne 🔲	Occupied Building	500	None 🔳
dditional Spil	Il Details Not Provided /		ivestock1	000 Nor	ne 🔲	Occupied Building	500	None 🔳

All of the fluids that were released into the lined secondary containment system were removed and disposed of via the Vaneta injection well. During the initial spill all but 2 bbls of produced water was removed. After the repairs were made, the rest of the produced water that was comingled with snow was removed and disposed of down the injection well. A total of 25 barrels of produced were spilled and a total of 25 barrels were recovered and injected down the Vaneta SWD. The spill happend in the area of Lat: 40.54047 Long:-106.39140

CORRECTIVE ACTIONS

#1 Supplemental Report Date	: 12/13/2016					
Cause of Spill (Check all that apply)	Human Error	⊠ Equipment Fa	ailure	Historical-Unknown		
	Other (specify)					
Describe Incident & Root Cause (inc	lude specific equipmen	nt and point of failure)				
A pressure relief line froze and cra				to spill into lined containment.		
				•		
Describe measures taken to prevent	the problem(s) from re	eoccurring:			20	
Replace the broken line, Install he	at trace and insulate pi	ipìng.				N N N
					APR	
Volume of Soil Excavated (cubic yar	ds): 0				0	유민
Disposition of Excavated Soil (attach	documentation)	Offsite Disposal		Onsite Treatment	7	
		Other (specify)			AH IO:	E T
Volume of Impacted Ground Water F	Removed (bbis):	0			2	2 HOR
Volume of Impacted Surface Water F	· · · · · · · · · · · · · · · · · · ·	0				X 1
	REQ	UEST FOR CLOSU	IKE			
Spill/Release Reports should be actions will take place under an a		have been remedia	ted or w	hen further investigation and c	orrectiv:	re
Basis for Closure: 🔀 Correctiv	e Actions Completed (d	documentation attach	ed)			
■ Work pro	ceeding under an appr	oved Form 27				
WINDS	Remediation Project N					
OPERATOR COMMENTS:						
				· · · · · · · · · · · · · · · · · · ·		
I hereby certify all statements made	in this form are to the	best of my knowledge	true, co	orrect, and complete.		
Signed:		Print Na	ame:	Clay Harwell		
Title: Remediation Supervisor	Date:	12/13/2016	Email:	charwell@sandridgeenergy.co	om	
COA Type	Description					
	this time and the CC conditions at the site standards or if groun remediation activitie	OGCC approves the e indicate contamin nd water is found to s may be required.	e closure ant con be imp	s that no further action is nece e request. However, should fu centrations in soils exceeding acted, then further investigati	iture COGC	С
	This Supplemental I	Report address CO	A's fron	n initial report.		

Attachment Check List

Att Doc Num	<u>Name</u>
401166350	FORM 19 SUBMITTED
401166361	TOPOGRAPHIC MAP
401166362	SITE MAP

Total Attach: 3 Files

General Comments

<u>User Group</u>	Comment	Comment Date
		Stamp Upon Approval

Total: 0 comment(s)

State of Colorado Oil and Gas Conservation Commission

CO DNR

1120 Lincoln Street, Suite 801, Denver, Colorado 80203 Phone: (303) 894-2100 Fax: (303) 894-2109 Date Received:

12/07/2016

Document Number:

401161178

Spill report taken by: NEIDEL, KRIS

Spill/Release Point ID: 448600

SPILL/RELEASE REPORT (INITIAL)

This form is to be submitted by the party responsible for the oil and gas spill or release. Refer to COGCC Rule 906,b. for reporting requirements of spills or releases of E&P Waste or produced fluids. Submit a Site Investigation and Remediation Workplan (Form 27) when requested by the Director.

OPERATOR INFORMATON

Name of Operator	SANDRIDGE EXPLORATION & P	RODUCTION	I LLC	Operator	No:	10598	'	Phone Numbers
Address: 123 F	ROBERT S KERR AVE				500		Phone:	(580) 430-4605
City: OKLAHON	MA CITY	State:	ОК	Zip:	7310	2	Mobile:	(405) 590-7483
Contact Person:	Clay Harwell						Email:	charwell@sandridgeen egry.com

Initial Report Date:	12/06/2016	Date of Discovery:	12/05/2016	Spill Type:	Recent Spill
Spill/Release Point Lo	ocation:				
Locationof Spill/Rele	ease: QTRQTR N	NENE SEC 32	TWP 7N	RNG 80W	MERIDIAN 6
Latitude: 40.54016	50 Longitude:	-106.391286			
'Municipality (if within	n municipal boundaries):	County: JACK	SON	
Reference Location:					
Facility Type: TANK	BATTERY	Facility/Location ID N	lo		2011
		No Existing Facility of	r Location ID No.		SE
	5	Well API No. (Only if	the reference facility	is well) 05-05	7-06467
Fluid(s) Spilled/Refeas	sed (please answer Yo	es/No):		*	0 97
Was one (1) barrel or	r more spilled outside o	of berms or secondary o	ontainment?	Yes	
Conondoniossis	mont Including walls	8 floor rogardines of		-1	
			construction materi	ai, must de sunicier	ntly impervious to contaur
any discharge fron	n primary containment (until cleanup occurs.	construction materi	ai, must de sunicier	ntly impervious to contain
any discharge from Were Five (5) barrels	n primary containment of some some some some some some some some	until cleanup occurs. Yes	construction materi	ai, must de sumcier	ntly impervious to contain
any discharge fron Were Five (5) barrels Estimated Total Spill Ve	n primary containment of some some some some some some some some	yes es as others for values			2 2
any discharge fron Were Five (5) barrels Estimated Total Spill Vo Estin	n primary containment of sor more spilled? olume: use same range mated Oil Spill Volume	yes es as others for values (bbl): 0	Estimated C	ondensate Spill Volu	ume(bbl): 0
any discharge fron Were Five (5) barrels Estimated Total Spill Ve Estimated Flow B	n primary containment of sor more spilled? colume: use same range mated Oil Spill Volume	yes es as others for values (bbl): 0 (bbl): 0	Estimated C Estimated Produ	ondensate Spill Volu ced Water Spill Volu	ume(bbl): 0 ume(bbl): >=5 and <100
any discharge from Were Five (5) barrels Estimated Total Spill Ve Estimated Flow B Estimated Other E8	n primary containment of sor more spilled? folume: use same range mated Oil Spill Volume ack Fluid Spill Volume ack Fluid Spill Volume ack Pwaste Spill Volume	yes es as others for values (bbl): 0 (bbl): 0 (bbl): 0	Estimated C Estimated Produ	ondensate Spill Volu	ume(bbl): 0 ume(bbl): >=5 and <100
any discharge from Were Five (5) barrels Estimated Total Spill Ve Estimated Flow B Estimated Other E& Specify:	n primary containment of sor more spilled? colume: use same range mated Oil Spill Volume	yes es as others for values (bbl): 0 (bbl): 0 (bbl): 0	Estimated C Estimated Produ	ondensate Spill Volu ced Water Spill Volu	ume(bbl): 0 ume(bbl): >=5 and <100
any discharge from Were Five (5) barrels Estimated Total Spill Ve Estimated Flow B Estimated Other Estimated Use:	n primary containment of sor more spilled? colume: use same range mated Oil Spill Volume(Back Fluid Spill Volume(&P Waste Spill Volume(yes es as others for values (bbl): (bbl): 0 (bbl): 0 (bbl): 0	Estimated C Estimated Produ Estimated Di	ondensate Spill Volu ced Water Spill Volu rilling Fluid Spill Volu	ume(bbl): 0 ume(bbl): >=5 and <100 ume(bbl): 0
any discharge from Were Five (5) barrels Estimated Total Spill Ve Estimated Flow B Estimated Other Estimated Other Estimated Use: Current Land Use:	n primary containment of sor more spilled? colume: use same range mated Oil Spill Volume Back Fluid Spill Volume BP Waste Spill Volume	until cleanup occurs. Yes es as others for values (bbl): 0 (bbl): 0 (bbl): O Other(Estimated C Estimated Produ Estimated Di	ondensate Spill Volu ced Water Spill Volu rilling Fluid Spill Volu	ume(bbl): 0 ume(bbl): >=5 and <100
any discharge from Were Five (5) barrels Estimated Total Spill Vo Estimated Flow B Estimated Other Estimated Other Estimated Use: Current Land Use: Weather Condition:	n primary containment of sor more spilled? colume: use same range mated Oil Spill Volume Back Fluid Spill Volume BAP Waste Spill Volume NON-CROP LAND	until cleanup occurs. Yes es as others for values (bbl): 0 (bbl): 0 (bbl): Other(Estimated C Estimated Produ Estimated Di	ondensate Spill Volu ced Water Spill Volu rilling Fluid Spill Volu	ume(bbl): 0 ume(bbl): >=5 and <100 ume(bbl): 0
any discharge from Were Five (5) barrels Estimated Total Spill Ve Estimated Flow B Estimated Other E8 Specify: Land Use: Current Land Use: Weather Condition: Surface Owner:	n primary containment of sor more spilled? colume: use same range mated Oil Spill Volume(Back Fluid Spill Volume(BP Waste Spill Volume(NON-CROP LAND 20 F PARTLY CLOUE	until cleanup occurs. Yes es as others for values (bbl): 0 (bbl): 0 Other(Estimated C Estimated Produ Estimated Di Specify): Specify):	ondensate Spill Volu ced Water Spill Volu rilling Fluid Spill Volu	ume(bbl): 0 ume(bbl): >=5 and <100 ume(bbl): 0
any discharge from Were Five (5) barrels Estimated Total Spill Ve Estimated Flow B Estimated Other E8 Specify: Land Use: Current Land Use: Weather Condition: Surface Owner:	n primary containment of sor more spilled? colume: use same range mated Oil Spill Volume(Back Fluid Spill Volume(BP Waste Spill Volume(NON-CROP LAND 20 F PARTLY CLOUE	until cleanup occurs. Yes es as others for values (bbl): 0 (bbl): 0 (bbl): Other(Estimated C Estimated Produ Estimated Di Specify): Specify):	ondensate Spill Volu ced Water Spill Volu rilling Fluid Spill Volu	ume(bbl): 0 ume(bbl): >=5 and <100 ume(bbl): 0

Describe what is known about the spill/release event (what happened -- including how it was stopped, contained, and recovered):

A 3/8 inch stainless steel line connecting filter pot to differential pressure meter broke free due to vibration. Fluid came from injection tank through charge pump to filter pot and then out the exposed piece of pipe. The spill did not leave the lined secondary containment. A vacuum truck was used to remove the produced water that was in the lined containment. Rebuilt stainless steel line, connected and tied it down to filter pot to reduce vibration. Switched over to secondary filter pot which has a more direct line to PD pump so less vibration. COGCC Facility Number 324752

List Agencies and Other Parties Notified:

OTHER NOTIFICATIONS

Date	Agency/Party	Contact	<u>Phone</u>	Response
12/5/2016	COGCC	Mr. Kris Niedel	970-871-1963	Was notified of the spill via phone call and email
12/6/2016	Land Owner	Jack and Vaneta Haworth	970-723-4614	Was notified by Mr. Doud SandRidge
12/6/2016	Jackson County Admin	Mr. Kent Crowder	970-723-4660	Was notified by Mr. Doud SandRidge

OPERATOR COMMENTS:

I heret	I hereby certify all statements made in this form are to the best of my knowledge true, correct, and complete.										
Signed	d:			Print Name:	Clay Harwell						
Title:	Remediation Supervisor	Date:	12/07/2016	Email:	charwell@sandridgeenegry.com						

COA Type	Description
	Lat/Long provided appears to be for the wellhead. Lat/Long on spill reports should be for the spill discharge point. Please provide location of spill discharge point on Supplemental Report.
	Supplemental report should describe the discrepancy between; spill fluid volume and recovered volume. It was reported that spill was inside lined containment.

Attachment Check List

Att Doc Num	<u>Name</u>
401161178	FORM 19 SUBMITTED

Total Attach: 1 Files

General Comments

User Group	Comment	Comment Date
Environmental	Spill was reported within 24 hours via email to COGCC.	12/07/2016

Total: 1 comment(s)

State of Colorado Oil and Gas Conservation Commission

CO DNR

1120 Lincoln Street, Suite 801, Denver, Colorado 80203 Phone: (303) 894-2100 Fax: (303) 894-2109 401166282

Date Received:

12/13/2016

Document Number:

Spill report taken by: NEIDEL, KRIS

Spill/Release Point ID: 448600

SPILL/RELEASE REPORT (SUPPLEMENTAL)

This form is to be submitted by the party responsible for the oil and gas spill or release. Refer to COGCC Rule 906.b. for reporting requirements of spills or releases of E&P Waste or produced fluids. Submit a Site investigation and Remediation Workplan (Form 27) when requested by the Director.

OPERATOR INFORMATON

Name of Operator	SANDRIDGE EXPLORATION &	PRODUCTION	ILLC	Operator	No:	10598	'	Phone Numbers
Address: 123 F	ROBERT S KERR AVE						Phone:	(580) 430-4605
City: OKLAHON	MA CITY	State:	ок	Zip:	73102	!	Mobile:	(405) 590-7483
Contact Person:	Clay Harwell		- 0				Email:	charwell@sandridgeen ergy.com

Initial Report Date:	12/06/2016	Date o	f Discovery	/:1	2/05/2016		Spill 1	уре:	Recent Sp	oill	
Spill/Release Point Lo	cation:										
Locationof Spill/Relea	ase: QTRQTR	NENE	SEC	32	TWP	7N	RNG	80W	MERIDIAN	6	_
Latitude: 40.54016	D Longitude	: -106.3	91286							2	(
'Municipality (if within	municipal bounda	ies):			County	: JACKS	NC				1
Reference Location:					,		•			775	0
Facility Type: TANK I	BATTERY	☐ Facili	ty/Location	ID No						70	-
		No E	kisting Faci	lity or L	Location ID	No.	_				C
		X Well	API No. (Oi	nly if th	e referenc	e facility is	well)	05-05	7-06467		c
Fluid(s) Spilled/Releas	ed (please answe	r Yes/No):					_			$\overline{\bigcirc}$	C.
											1.5
Was one (1) barrel or Secondary contains any discharge from	ment, including w primary containme	alls & floor ant until clea	regardies: nup occurs	s of co			Yes , must be	e sufficier	ally impervious	to con	ntail
Secondary contains any discharge from Were Five (5) barrels Estimated Total Spill Vo	ment, including w e primary containment or more spilled?	alls & floor ant until clea Yes nges as oth	regardies: nup occurs	s of co	onstruction		, must be			to con	ntail
Secondary contains any discharge from Were Five (5) barrels Estimated Total Spill Vo Estin	ment, including wa primary containme or more spilled? lume: use same ra	nt until clea Yes nges as oth me(bbl):	regardless anup occurs ers for valu	s of co	onstruction Estir	n material	, must be	Spill Volu		0	
Secondary contains any discharge from Were Five (5) barrels Estimated Total Spill Vo Estin	ment, including wa primary containme or more spilled? lume: use same ra nated Oil Spill Volu ack Fluid Spill Volu	ndis & floor ant until clea Yes nges as oth me(bbl): me(bbl):	regardless nup occurs ers for valu	s of co	enstruction Estir Estimate	n material	, must be	Spill Volu Spill Volu	ume(bbl):	0	
Secondary contains any discharge from Were Five (5) barrels Estimated Total Spill Vo Estim	ment, including wa primary containme or more spilled? lume: use same ra nated Oil Spill Volu ack Fluid Spill Volu	ndis & floor ant until clea Yes nges as oth me(bbl): me(bbl):	regardless anup occurs ers for valu 0	s of co	enstruction Estir Estimate	n material mated Con d Produce	, must be	Spill Volu Spill Volu	ume(bbl):	0 and <	
Secondary contains any discharge from Were Five (5) barrels Estimated Total Spill Vo Estimated Flow Barrels Estimated Other E& Specify:	ment, including wa primary containme or more spilled? lume: use same ra nated Oil Spill Volu ack Fluid Spill Volu	ndis & floor ant until clea Yes nges as oth me(bbl): me(bbl):	regardless anup occurs ers for valu 0	s of co	enstruction Estir Estimate	n material mated Con d Produce	, must be	Spill Volu Spill Volu	ume(bbl):	0 and <	
Secondary contains any discharge from Were Five (5) barrels Estimated Total Spill Vo Estim Estimated Flow Ba	ment, including wa primary containme or more spilled? lume: use same ra nated Oil Spill Volu ack Fluid Spill Volu P Waste Spill Volu	ndis & floor ent until clea Yes nges as oth me(bbl): me(bbl): me(bbl):	regardless anup occurs ers for valu 0 0 0	s of co	Estir Estimate Estimate	n material mated Con d Produce nated Drilli	, <i>must be</i> idensate ed Water ing Fluid	Spill Volu Spill Volu Spill Volu	ume(bbl): ume(bbl):>=5 ume(bbl):	0 and <	
Secondary contains any discharge from Were Five (5) barrels Estimated Total Spill Vo Estim Estimated Flow Ba Estimated Other E& Specify: Land Use:	ment, including wa primary containme or more spilled? lume: use same ra nated Oil Spill Volu ack Fluid Spill Volu P Waste Spill Volu	ndis & floor nent until clea Yes nges as oth me(bbl): me(bbl): me(bbl):	regardless anup occurs ers for valu 0 0 0	es of co	Estir Estimate Estimate	n material mated Con d Produce nated Drilli	, <i>must be</i> idensate ed Water ing Fluid	Spill Volu Spill Volu Spill Volu	ume(bbl):	0 and <	
Secondary contains any discharge from Were Five (5) barrels Estimated Total Spill Vo Estim Estimated Flow Ba Estimated Other E& Specify: Land Use: Current Land Use:	ment, including wan primary containment or more spilled? Illume: use same ranated Oil Spill Volumeck Fluid Spill Volumeck Fluid Spill Volumeck Spill Volumec	ndis & floor nent until clea Yes nges as oth me(bbl): me(bbl): me(bbl):	regardless anup occurs ers for valu 0 0 0 0	s of co	Estir Estimate Estimate	n material mated Con d Produce nated Drilli	, <i>must be</i> idensate ed Water ing Fluid	Spill Volu Spill Volu Spill Volu	ume(bbl): ume(bbl):>=5 ume(bbl):	0 and <	
Secondary contains any discharge from Were Five (5) barrels Estimated Total Spill Vo Estim Estimated Flow Ba Estimated Other E& Specify: Land Use: Current Land Use: Weather Condition:	ment, including wa primary containme or more spilled? dume: use same ra nated Oil Spill Volu ack Fluid Spill Volu P Waste Spill Volu NON-CROP LAND	ndis & floor not until clea Yes nges as oth me(bbl): me(bbl): me(bbl):	regardless anup occurs ers for valu 0 0 0 0	s of co	Estin Estimate Estin ecify):	n material	densate d Water	Spill Volu Spill Volu Spill Volu	ume(bbl): ume(bbl):>=5 ume(bbl):	0 and <	

tank through o A vacuum truc tied it down to	charge pump to filter po ck was used to remove	t and then ou the produced ation. Switch	t the exposed piece water that was in the	of pipe. The spill he lined containm	ree due to vibration. Fluid came from injection I did not leave the lined secondary containment. ent. Rebuilt stainless steel line, connected and has a more direct line to PD pump so less
List Agencles	and Other Parties No	tified:	OTHER NOT	FICATIONS	
<u>Date</u>	Agency/Party	Contact Phone Response			Response
12/5/2016	COGCC	Mr. Kris N	liedel	970-871-1963	Was notified of the spill via phone call and email
12/6/2016	Land Owner	Jack and	Vaneta Haworth	970-723-4614	Was notified by Mr. Doud SandRidge
12/6/2016	Jackson County Admin	Mr. Kent	Crowder	970-723-4660	Was notified by Mr. Doud SandRidge
		SP	ILL/RELEASE DI	ETAIL REPORT	'S
#1 Sug	oplemental Report Date	i: 12/13	/2016		
FLUIDS	BBL's	SPILLED	BBL's RECOVE	RED Unknow	vn
OIL		0		0	
CONDENSAT	TE	0		0 🖪	
PRODUCED	WATER	70		70	
DRILLING FL	.UID	0	-	0	
FLOW BACK	FLUID	0		0	
OTHER E&P	WASTE	0		0	
specify:					
Was spill/rele	ase completely contain	ed within berr	ns or secondary co	ntainment? Y	ES Was an Emergency Pit constructed? NO
	v containment, includi n arge from primary conta			onstruction mat	erial, must be sufficiently impervious to contain
A Form 15 Pi	t Report shall be sub	mitted within	30 calendar days	after the constru	uction of an emergency pit
Impacted Med	dia (Check all that apply	y) Soil	☐ Groundwat	ter 🔲 Surfa	ce Water
Surface	e Area Impacted: Leng	gth of Impact	(feet):		Width of Impact (feet):
	Depth of	Impact (feet l	3GS):		Depth of Impact (inches BGS):
How was exte	ent determined?				
Due to the factoring to the containment s		lined within a	lined secondary co	ntainment system	, the extent of the spill was limited to the
Soil/Geology	Description:				
Due to the fac	t that the spill was con	îne within a li	ned secondary cont	ainment system,	underlying soil was not impacted.
Depth to Grou	ındwater (feet BGS)	17	Numbe	er Water Wells wit	thin 1/2 mile radius: 2
If less than 1	mile, distance in feet to	nearest \	Water Well 50	00 None	Surface Water 513 None
			Wetlands	None 🔀	Springs None 🔀

Livestock

Additional Spill Details Not Provided Above:

1000 None 🔲

Occupied Building

500

None 🗐

All of the fluids that were released into the lined secondary containment system were removed and disposed of via the Vaneta injection well. During the initial spill all but 2 bbls of produced water was removed. After the repairers were made the rest of the produced water that was comingled with snow was removed and disposed of down the injection well. A total of 70 barrels of produced were spilled and a total of 70 barrels were recovered. The location of the spill was Lat: 40.54047 Long: -106.39140

CORRECTIVE ACTIONS

#1	Supplemental Report Date	e: 12/13/2016				
Cause	of Spill (Check all that apply)	Human Error	⊠ Equipment Failure	Historical-Unknown		
		Other (specify)				
Descril	be Incident & Root Cause (inc	clude specific equipmen	t and point of failure)			
	3 inch stainless steel line con tion tank through charge pur			e free due to vibration. Fluid came foe.	from	
Descri	be measures taken to preven	t the problem(s) from re	occurring:			
	uilt the stainless steel line cor pot which has a more direct			to reduce vibration. Switched over t	o second	dary
Volum	e of Soil Excavated (cubic ya	rds): 0			- 10	SHOT S
	sition of Excavated Soil (attac		Offsite Disposal	Onsite Treatment	2200	SIM D
Бізрос	MIGH OF EXCEPTION CON (UND	Page	Other (specify)	a didio riddiidii	70	110-1
Volume	o of Imposted Cround Motor		n		0	의 : - 유 - 기 :>
	e of Impacted Ground Water e of Impacted Surface Water		<u>_</u>		E	AND I
Volume		Ttomoved (bbis):			Ö	12 T E
		REQU	JEST FOR CLOSURE		2	
Spiil/ actio	Release Reports should be ns will take place under an	closed when impacts approved Form 27.	have been remediated or	when further investigation and c	orrective	
Basis	for Closure: X Correctiv	ve Actions Completed (d	ocumentation attached)			
	☐ Work pro	oceeding under an appro	oved Form 27			
	Form 27	Remediation Project No	D:			
OPER.	ATOR COMMENTS:					
I here	by certify all statements made	e in this form are to the l	pest of my knowledge true,	correct, and complete.		
Signe	d:		Print Name:	Clay Harwell		
Title:	Remedation Supervisor	Date:	12/13/2016 Email	charwell@sandridgeenergy.co	m	
COA 1	Гуре	Description				
		this time and the CC conditions at the site standards or if grour remediation activities	OGCC approves the close indicate contaminant cond water is found to be in may be required.	ars that no further action is nece ure request. However, should fur oncentrations in soils exceeding npacted, then further investigation	ture COGCC	5
		This Supplemental F	Report address COA's fr	om initial report.		

Attachment Check List

Att Doc Num	<u>Name</u>
401166282	FORM 19 SUBMITTED
401166346	TOPOGRAPHIC MAP
401166347	SITE MAP

Total Attach: 3 Files

General Comments

<u>User Group</u>	Comment	Comment Date
		Stamp Upon
		Approval

Total: 0 comment(s)

State of Colorado Oil and Gas Conservation Commission

1120 Lincoln Street, Suite 801, Denver, Colorado 80203 Phone: (303) 894-2100 Fax: (303) 894-2109

SPILL/RELEASE REPORT (INITIAL)

This form is to be submitted by the party responsible for the oil and gas spill or release. Refer to COGCC Rule 906.b. for reporting requirements of spills or releases of E&P Waste or produced fluids. Submit a Site Investigation and Remediation Workplan (Form 27) when requested by the Director.

Document Number: 401179619 Date Received: 01/06/2017 Spill report taken by: NEIDEL, KRIS Spill/Release Point ID:

448929

OPERATOR INFORMATON

Name of Operator: SANDRIDGE EXPLORATION & PRODUCTION LLC	Operator No: 10598	Phone No	umbers
Address: 123 ROBERT S KERR AVE		Phone: (405) 59	90-7483
City: OKLAHOMA CITY State: OK	Zip: 73102	Mobile: (405) 59	90-7483
Contact Person: Clay Harwell			l@sandridgeen
INITIAL SPILL/RE Initial Spill/Release Repo			
Initial Report Date: 01/06/2017 Date of Discovery:	01/06/2017 Spill Ty	pe: Recent	Spill
Spill/Release Point Location:			
Locationof Spill/Release: QTRQTR NENE SEC 7	TWP 7N RNG	80W MERIDIA	N 6
Latitude: 40.598306 Longitude: -106.415469			
'Municipality (if within municipal boundaries):	County: JACKSON		0
Reference Location:			ZOT:
Facility Type: WELL Facility/Location ID No	0		APR
No Existing Facility or	Location ID No.		20 HOH
Well API No. (Only if	he reference facility is well)	05-057-06499	0 0,00
Fluid(s) Spilled/Released (please answer Yes/No):			P OXX
Was one (1) barrel or more spilled outside of berms or secondary co	ntainment? Yes		교 일표되
Secondary containment, including walls & floor regardless of c any discharge from primary containment until cleanup occurs.	onstruction material, must be	sufficiently imperviou	us Econtain
Were Five (5) barrels or more spilled?			
Estimated Total Spill Volume: use same ranges as others for values			
Estimated Oil Spill Volume(bbl): >=1 and <5	Estimated Condensate S	Spill Volume(bbl):	0
Estimated Flow Back Fluid Spill Volume(bbl): 0	Estimated Produced Water S	Spill Volume(bbl):	0
Estimated Other E&P Waste Spill Volume(bbl): 0	Estimated Drilling Fluid S	Spill Volume(bbl):	0
Specify:		10.00	
Land Use:			
Current Land Use: NON-CROP LAND Other(S	Specify):		
Weather Condition: Sunny 10 degree F7 Winf 7 mph			
Surface Owner: FEE Other(S	Specify):		
Check if impacted or threatened by spill/Release (please answer Y	es/No to all that apply):		
Waters of the State Residence/Occupied Structure Liv	estock Public Byway [Surface Water	Supply Area
As defined in COGCC 100-Series Rules			

Describe what is known about the spill/release event (what happened -- including how it was stopped, contained, and recovered): The pressure gauge on the tubing flow line burst from the minus 40 temps. We are utilizing a hot air trailer to melt snow and vacuum truck to suck up spilled fluid. 4 BBL of oil spilled and 4 BBL of oil was recovered along with melted snow. Isolated all the valves to gauges on wellheads and replaced the pressure gauge. List Agencies and Other Parties Notified: OTHER NOTIFICATIONS **Phone** Date Agency/Party Contact Response COGCC Kris Neidel 970-871-1963 Mr. Neidel was notified via email about the spill

OPERATOR COMMENTS:

I hereby certify all statements made in	this form are to	the best of my knowle	edge true, c	orrect, and complete.	
Signed:		Prin	t Name:	Clay Harweli	
Title: Remediation Supervisor	Date:	01/06/2017	Email:	charwell@sandridgeenergy.com	

COA Type	Description
	Did the spill impact any other wellheads on the location? Please address in the supplemental report.
	Supplemental report.

Attachment Check List

Att Doc Num	<u>Name</u>
401179619	FORM 19 SUBMITTED
401179649	OTHER
401179650	OTHER
401179651	OTHER

Total Attach: 4 Files

General Comments

<u>User Group</u>	Comment	Comment Date
	It appears that the spill stayed on location, please confirm (or provide information of spill path) in supplemental report.	01/13/2017
	It appears that the spill stayed on location, please confirm (or provide information of spill path) in supplemental report.	01/13/2017

Total: 2 comment(s)

State of Colorado Oil and Gas Conservation Commission

CO DNR

1120 Lincoln Street, Suite 801, Denver, Colorado 80203 Phone: (303) 894-2100 Fax: (303) 894-2109 401187861

Date Received:

Date Received: 01/18/2017

Document Number:

Spill report taken by:

Spill/Release Point ID: 448929

NEIDEL, KRIS

SPILL/RELEASE REPORT (SUPPLEMENTAL)

This form is to be submitted by the party responsible for the oil and gas spill or release. Refer to COGCC Rule 906.b. for reporting requirements of spills or releases of E&P Waste or produced fluids. Submit a Sile Investigation and Remediation Workplan (Form 27) when requested by the Director.

OPERATOR INFORMATON

Name of Operator:	SANDRIDGE EXPLORATION &	PRODUCTION	I LLC	Operator	No:	10598		Phone Numbers
Address: 123 R	OBERT S KERR AVE						Phone:	(580) 430-4605
City: OKLAHOM	IA CITY	State:	ОК	Zip:	7310	2	Mobile:	(405) 590-7483
Contact Person:	Clay Harwell						Email:	charwell@sandridgeen ergy.com

Initial Report Date:	01/06/2017	Date of Discovery:	01/06/2017	Spill Type: Re	ecent Spill
Spill/Release Point Lo	ocation:				
Locationof Spill/Rele	ease: QTRQTR	NENE SEC 7	TWP 7N	RNG 80W MER	RIDIAN 6
Latitude: 40.59830)6 Longitude:	-106.415469		(1 	-
'Municipality (if within	n municipal boundaries	s):	County: JACK	SON	2 COB
eference Location:		 			
Facility Type: WELL	j	Facility/Location ID	No		
		No Existing Facility	or Location ID No.		
	Ţ	₩ Well API No. (Only i	if the reference facility	is well) 05-057-06499	9 3
luid(s) Spilled/Releas	sed (please answer Y	fes/No):			
		/es/No): of berms or secondary o	containment?	Yes	
Was one (1) barrel or Secondary contain	r more spilled outside i iment, including walls	of berms or secondary of second		Yes ial, must be sufficiently impe	
Was one (1) barrel or Secondary contain any discharge from	r more spilled outside ament, including walls in primary containment	of berms or secondary of s & floor regardless of until cleanup occurs.			
Was one (1) barrel or Secondary contain any discharge from Were Five (5) barrels	r more spilled outside ones, including walls or more spilled?	of berms or secondary of s & floor regardless of until cleanup occurs. No	f construction materi		
Was one (1) barrel of Secondary contain any discharge from Were Five (5) barrels Stimated Total Spill Vo	r more spilled outside onent, including walls of primary containment of more spilled?	of berms or secondary of s & floor regardless of until cleanup occurs. No les as others for values	f construction materi	ial, must be sufficiently impo	pervious (to contain)
Was one (1) barrel or Secondary contain any discharge from Were Five (5) barrels Estimated Total Spill Vo Estir	r more spilled outside inment, including walls in primary containment is or more spilled? Jolume: use same rangemated Oil Spill Volume	of berms or secondary of s & floor regardless of until cleanup occurs. No les as others for values e(bbl): >=1 and <5	f construction materi	ial, must be sufficiently impo	ervious (to) conțain
Was one (1) barrel of Secondary contain any discharge from Were Five (5) barrels Estimated Total Spill Vo Estimated Flow B	r more spilled outside inment, including walls in primary containment is or more spilled? Tolume: use same rangemated Oil Spill Volume ack Fluid Spill Volume	of berms or secondary of s & floor regardless of until cleanup occurs. No less as others for values e(bbl): >=1 and <5	Estimated Produ	ial, must be sufficiently imposonate Spill Volume(bbloced Water Spill Volume(bbloced Water Spill Volume(bbloced Water Spill Volume(bbloced Water Spill Volume)	ervious (to contain)
Was one (1) barrel of Secondary contain any discharge from Were Five (5) barrels estimated Total Spill Volume Estimated Flow B Estimated Other E&	r more spilled outside inment, including walls in primary containment is or more spilled? Jolume: use same rangemated Oil Spill Volume	of berms or secondary of s & floor regardless of until cleanup occurs. No less as others for values e(bbl): >=1 and <5	Estimated Produ	ial, must be sufficiently impo	ervious (to contain)
Was one (1) barrel of Secondary contain any discharge from Were Five (5) barrels Estimated Total Spill Vo Estimated Flow B Estimated Other E& Specify:	r more spilled outside inment, including walls in primary containment is or more spilled? Tolume: use same rangemated Oil Spill Volume ack Fluid Spill Volume	of berms or secondary of s & floor regardless of until cleanup occurs. No less as others for values e(bbl): >=1 and <5	Estimated Produ	ial, must be sufficiently imposonate Spill Volume(bbloced Water Spill Volume(bbloced Water Spill Volume(bbloced Water Spill Volume)	ervious (to contain)
Was one (1) barrel or Secondary contain any discharge from Were Five (5) barrels Estimated Total Spill Vo Estimated Flow B Estimated Other Estimated Other Estimated Other Estimated Use:	r more spilled outside inment, including walls in primary containment is or more spilled? Tolume: use same rangemated Oil Spill Volume ack Fluid Spill Volume	of berms or secondary of s. & floor regardless of until cleanup occurs. No les as others for values e(bbl): >=1 and <5 e(bbl): 0 e(bbl): 0	Estimated Construction material Estimated Production Estimated Draw (Specific)	ial, must be sufficiently imposondensate Spill Volume(bbloed Water Spill Volume(bbloed Water Spill Volume(bbloed Spill Volume(ervious (to) contain
Secondary contain any discharge from Were Five (5) barrels Estimated Total Spill Vo Estim Estimated Flow B Estimated Other E8 Specify: and Use: Current Land Use:	r more spilled outside inment, including walls in primary containment is or more spilled? Jolume: use same rangmated Oil Spill Volume ack Fluid Spill Volume is P Waste Spill Volume	of berms or secondary of s & floor regardless of until cleanup occurs. No less as others for values e(bbl): >=1 and <5 e(bbl): 0 Other	Estimated Construction material Estimated Production Estimated Draw (Specific)	ial, must be sufficiently imposonate Spill Volume(bbloced Water Spill Volume(bbloced Water Spill Volume(bbloced Water Spill Volume)	ervious (to) contain
Was one (1) barrel of Secondary contain any discharge from Were Five (5) barrels estimated Total Spill Vo Estimated Flow B Estimated Other E8 Specify: and Use: Current Land Use:	r more spilled outside iment, including walls in primary containment is or more spilled? Jolume: use same rangimated Oil Spill Volume ack Fluid Spill Volume AP Waste Spill Volume NON-CROP LAND Sunny 10 degree F7	of berms or secondary of s & floor regardless of until cleanup occurs. No les as others for values e(bbl): >=1 and <5 e(bbl): 0 Other Winf 7 mph	Estimated Construction material Estimated Production Estimated Draw (Specific)	ial, must be sufficiently imposondensate Spill Volume(bbloed Water Spill Volume(bbloed Water Spill Volume(bbloed Spill Volume(ervious (to contain) (1): 0 (1): 0

jauges on w	e gauge on the tubing flup spilled fluid. 4 BBL relibeads and replaced f	of oil spilled and 4 BBL of	us 40 temps. We are u oil was recovered along	utilizing a hot air trailer to melt sn g with melted snow. Isolated all t	now and vacuum he valves to
ist Agencie	s and Other Parties N	otified:			
		OTHER	R NOTIFICATIONS		
Date	Agency/Party	Contact	<u>Phone</u>	Response	
	COGCC	Kris Neidel	970-871-196	3 Mr. Neidel was notified vi spill	ia email about the
		SPILL/RELE	ASE DETAIL REPOR	RTS	
#1 Sı	upplemental Report Dat	te: 01/18/2017	•		
FLUIDS			ECOVERED Unknown	own	
OIL		4	4 [
CONDENSA	 \TE	0	0 1		
PRODUCED	WATER	0	0 [10	
DRILLING F	LUID	0	0 [
FLOW BAC	K FLUID	0	<u> </u>	10	
OTHER E&F	P WASTE	0	0 [
specify:					
	ease completely contain	ned within berms or secon	dary containment?	YES Was an Emergency Pit of	constructed? NO
Was spill/rel	rv containment, includ i		ess of construction ma	YES Was an Emergency Pit o	
Was spill/rel Seconda any disch	ry containment, includ i narge from primary cont	ing walls & floor regardle ainment until cleanup occu	ess of construction ma urs.		
Was spill/rel Seconda any disch	ry containment, includ i narge from primary cont	ing walls & floor regardle tainment until cleanup occu omitted within 30 calenda	ess of construction ma urs. ar days after the cons	aterial, must be sufficiently impe	
Was spill/rel Seconda any disch A Form 15 F	ry containment, includ i narge from primary cont Pit Report shall be sut	ing walls & floor regardle tainment until cleanup occupanitted within 30 calendately)	ess of construction ma urs. ar days after the cons	aterial, must be sufficiently impe	nrvious to contain
Was spill/rel Seconda any disch A Form 15 F	ry containment, Includinarge from primary cont Pit Report shall be sub edia (Check all that app ce Area Impacted: Ler	ing walls & floor regardle tainment until cleanup occupanitted within 30 calendately)	ess of construction ma urs. ar days after the cons	aterial, must be sufficiently imper truction of an emergency plt rface Water	ervious to contain inage Feature et):
Was spill/rel Seconda any disch A Form 15 F Impacted Mo	ry containment, Includinarge from primary cont Pit Report shall be sub edia (Check all that app ce Area Impacted: Ler	ing walls & floor regardle tainment until cleanup occupanitted within 30 calendary) Soil Groupth of Impact (feet):	ess of construction ma urs. ar days after the cons	aterial, must be sufficiently imper truction of an emergency plt rface Water Dry Drai Width of Impact (fee	ervious to contain inage Feature et):
Was spill/rel Secondai any disch A Form 15 F Impacted Me Surfai	ry containment, Includinarge from primary cont Pit Report shall be sub edia (Check all that app ce Area Impacted: Ler Depth co	ing walls & floor regardle tainment until cleanup occupanitted within 30 calendary) Soil Groupth of Impact (feet):	ess of construction maurs. ar days after the consoundwater	aterial, must be sufficiently imper truction of an emergency pit rface Water	ervious to contain inage Feature et):
Secondai any disch A Form 15 F Impacted Me Surfai How was ex Visually, the	ry containment, Includinarge from primary cont Pit Report shall be sub edia (Check all that app ce Area Impacted: Ler Depth co	ing walls & floor regardle tainment until cleanup occupamitted within 30 calendary) Soil Groungth of Impact (feet):	ess of construction maurs. ar days after the consoundwater	aterial, must be sufficiently imper truction of an emergency pit rface Water	ervious to contain inage Feature et):
Was spill/rel Secondar any disch A Form 15 F Impacted Me Surfar How was ex Visually, the	ry containment, Includinarge from primary content of the subsection of the subsectio	ing walls & floor regardle tainment until cleanup occur omitted within 30 calendary) Soil Group	ess of construction maurs. ar days after the consoundwater	aterial, must be sufficiently imper truction of an emergency pit rface Water	ervious to contain inage Feature et):
Was spill/rel Secondar any disch A Form 15 F Impacted Me Surfar How was ex Visually, the Soil/Geology Gravels and	ry containment, Including from primary continuarge from primary continuarge from primary continuarge from primary continuarge from primary continuarge from primary continuarge from the continuarge f	ing walls & floor regardle tainment until cleanup occur omitted within 30 calendary) Soil Group	ess of construction maurs. ar days after the construction maurs. ar days after the construction maurs. But the construction maurs	aterial, must be sufficiently imper truction of an emergency pit rface Water	ervious to contain inage Feature et):
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Was spill/rel Secondai any disch A Form 15 F Impacted Me Surfai How was exi Visually, the Soil/Geology Gravels and	ry containment, Including from primary content of the subsection o	ing walls & floor regardle tainment until cleanup occupanitted within 30 calendary) Soil Group G	ess of construction materials. ar days after the construction materials. bundwater Successive Su	truction of an emergency pit rface Water Dry Drai Width of Impact (fee Depth of Impact (inches BGS	inage Feature et):
Was spill/rel Secondar Ary disch Form 15 F Impacted Me Surfar How was ext Visually, the Soil/Geology Gravels and	ry containment, Including from primary content of the subsection o	ing walls & floor regardle tainment until cleanup occupanited within 30 calendary) Soil Group Gr	ess of construction materials. ar days after the construction materials. But days after the construction materials. Substitute of the construction materials. Substitute of the construction materials. Substitute of the construction materials. Substitute of the construction materials. Substitute of the construction materials. Substitute of the construction materials.	truction of an emergency pit rface Water Dry Drai Width of Impact (fee Depth of Impact (inches BGS	inage Feature et): S): None
Was spill/rel Secondar any disch A Form 15 F Impacted Me Surfar How was ext Visually, the Soil/Geology Gravels and Depth to Gro	ry containment, Including from primary content of the subsection o	ing walls & floor regardle tainment until cleanup occupanited within 30 calendary) Soil Group Gr	Number Water Wells	truction of an emergency pit rface Water Dry Drai Width of Impact (fee Depth of Impact (inches BGS Ilheads on the location. within 1/2 mile radius: 2 Surface Water 17 Springs	inage Feature ot): S): None X

#1 Supplem	ental Report Date	:01/18/2017				
Cause of Spill (Ch	eck all that apply)	Human Error	ズ Equipment Failure	Historical-Unknown		
Nº T		Other (specify)				
Describe Incident 8	ß Root Cause (inc	lude specific equipment	and point of failure)			
The pressure ga vacuum truck to	uge on the tubing suck up spilled flu	flow line burst from the id. 4 BBL of oil spilled a	minus 40 temps. We are und 4 BBL of oil was recover	tilizing a hot air trailer to melt sno ed along with melted snow.	w and	
Describe measure	s taken to prevent	the problem(s) from rec	occurring:			
Isolated all the	valves to gauges o	on wellheads and replac	ed the pressure gauge.			
						0
Volume of Soil Exc	cavated (cubic yar	ds): 0			201	O S C
Disposition of Exce	avated Soil (attach	documentation)	Offsite Disposal	Onsite Treatment	220	125 C
	,		Other (specify)		70	
Volume of Impacte	d Ground Water R		0			
Volume of Impacte						등 등
				PP-St-Pt-st-st-st-st-st-st-st-st-st-st-st-st-st	0	UTX
		REQU	EST FOR CLOSURE		. <u></u>	- 필급S
Spill/Release Re	ports should be	closed when impacts h	nave been remediated or v	vhen further investigation and	correctiv	.t) /e
		ipproved Form 27.				
Basis for Closure	: X Corrective	e Actions Completed (do	ocumentation attached)			
	Work pro	ceeding under an appro	ved Form 27			
	Form 27 I	Remediation Project No:				
OPERATOR CO	MENTS:					
h						
•	statements made	in this form are to the pe	est of my knowledge true, c	•		
Signed:			Print Name:	Clay Harwell		
Title: Remediati	on Supervisor	Date:	01/18/2017 Email:	charwell@sandridgeenergy.c	om	
COA Type		Description	•			
	V	the closure request. I concentrations in soil impacted, then furthe addition, the surface	However, should future of sexceeding COGCC state investigation and/or ren	at this time and the COGCC onditions at the site indicate condards or if ground water is for nediation activities may be reclaid the reclain the reclain the reclain Rules.	ontamina ound to b quired. Ir	ant pe
			ation, samples analyzed : Table 910-1 constituents.	shall be collected to determine	that the	ere
		<u>Attachn</u>	nent Check List			
Att Doc Num	Name					
401187861	FORM 19 SU	BMITTED				
401188197	SITE MAP					

Total Attach: 4 Files

401188204 401188233 TOPOGRAPHIC MAP

OTHER

General Comments

<u>User Group</u>	Comment	Comment Date
		Stamp Upon Approval

Total: 0 comment(s)

State of Colorado **Oil and Gas Conservation Commission**

1120 Lincoln Street, Suite 801, Denver, Colorado 80203 Phone: (303) 894-2100 Fax: (303) 894-2109

401185628 Date Received:

Document Number:

01/16/2017

Spill report taken by: **NEIDEL, KRIS**

Spill/Release Point ID: 448972

SPILL/RELEASE REPORT (INITIAL)

This form is to be submitted by the party responsible for the oil and gas spill or release. Refer to COGCC Rule 906.b. for reporting requirements of spills or releases of E&P Waste or produced fluids. Submit a Site Investigation and Remediation Workplan (Form 27) when requested by the Director.

OPERATOR INFORMATON

Name of Operator: BONANZA CREEK ENERGY OPERATING COMPANY LLC		Operator No:		8960	Phone Numbers			
Address: 410 171	TH STREET SUITE #1400						Phone:	(720) 440-6100
City: DENVER		State:	СО	Zip:	80202		Mobile:	()
Contact Person: E	Irian Dodek						Email:	BDodek@Bonanzacrk.

		INIT	IAL SPILL	JREL!	EASE REPORT	•			
		Initial Sp	pill/Release f	Report	Doc# 401185	628			
Initial Report Date:	01/16/2017	Date c	of Discovery:	0	1/16/2017	Spill Typ	oe: Rec	ent Spill	
Spill/Release Point Lo	ocation;								
Locationof Spill/Rele	ease: QTRQTR	NWSE	SEC	2	TWP 9N	RNG_	79W MERI	DIAN 6	
Latitude: 40.77982	23 Longitude	e: -106.23	33836						
'Municipality (if withir	— л municipal boundar	ies):			County: JAC	KSON			
Reference Location:								0	
Facility Type: FLOW	LINE	Facili	ty/Location II	D No				201	
		No E	xisting Facilit	ty or L	ocation ID No.			-	
		Well /	API No. (Onl	ly if the	reference facility	y is well) ()5	APR	= [9]
Fluid(s) Spilled/Releas	sed (please answe		-		-	, , <u> </u>			100
Was one (1) barrel or	r more spilled outsid	e of berms	or secondar	y cont	ainment?	Yes			差量
Secondary contains	ment, including wa	ills & floor	regardless (of cor		rial, must be s	 ufficiently imper	vious to contain	
	n primary containme								
Were Five (5) barrels	· -	Yes		25-45				ω	470
Estimated Total Spill Vo		1,316,231	_ 23	S	T-*	·	***** ** **	•	
	mated Oil Spill Volur Back Fluid Spill Volur	· · —	0	_		•	pill Volume(bbl):		_
	-	· · · —		_			pill Volume(bbl):		
Specific	&P Waste Spill Volun	` '—	0	_	Estimated D	rilling Fluid Sp	oill Volume(bbl):	0	_
Land Use:									
	NON-CROP LAND	ı	Oth	er(Spe	acifu)				
Weather Condition:				віторе	:спу,				
Surface Owner:		0070100	Oth	er(Spe	onful.				
									
Check if Impacted or the		Release (pl	lease answe	er Yes	/No to all that a	pply):			
Waters of the State		•	ıcture 🔳	Lives	tock 🔲 Pu	blic Byway 📋	Surface Wat	ter Supply Area	
As defined in COGO	CC 100-Series Rule	S							

Describe what is known about the spill/release event (what happened - including how it was stopped, contained, and recovered): A water injection line failed and released produced water to the ground, outside of containment. With current snow cover at the site, the current estimated release volume is 50 bbls. The release occurred 60 feet west of the Pierre B tank battery. The line and associated injection wells were immediately shut in to stop the release. A vac truck will be called out to recover any pooled fluid. Environmental personnel will assess the impact to the surface. Remediation details will be submitted in a subsequent Form 19. The line will either be replaced or repaired and pressure tested prior to being put back into service. List Agencies and Other Parties Notified: OTHER NOTIFICATIONS Response Contact Phone Date Agency/Party Notified of release on file 1/16/2017 Jackson County Kent Crowder on file Notified of release via eForm 19 Kris Neidel 1/16/2017 COGCC Notified of release via WIS submittal on file 1/16/2017 BLM **OPERATOR COMMENTS:** I hereby certify all statements made in this form are to the best of my knowledge true, correct, and complete. Print Name: **Brian Dodek** BDodek@Bonanzacrk.com 01/16/2017 Email: Title: Env Supervisor Date: **Description COA Type** Operator should provide demonstration with flowline rule, 1101.e.upon request for closure. Supplemental Report should include a map showing the impacted area. Due to the nature of the shallow groundwater in the vicinity of the Spill/Release point, Monitoring Wells (MW-11. MW-12. MW-3 and MW-14) previously installed shall be monitored and sampled for Table 910-1 Constituents within 30-days of this incident. **Attachment Check List**

Att Doc Num	<u>Name</u>
401185628	FORM 19 SUBMITTED
401185760	TOPOGRAPHIC MAP

Total Attach: 2 Files

General Comments

<u>User Group</u>	Comment	Comment Date
*		Stamp Upon Approval

Total: 0 comment(s)

State of Colorado Oil and Gas Conservation Commission

CO

1120 Lincoln Street, Suite 801, Denver, Colorado 80203 Phone: (303) 894-2100 Fax: (303) 894-2109

03/08/2017

Spill report taken by NEIDEL, KRIS

Document Number:

401227696

Date Received:

Spill/Release Point ID: 448972

SPILL/RELEASE REPORT (SUPPLEMENTAL)

This form is to be submitted by the party responsible for the oil and gas spill or release. Refer to COGCC Rule 906.b. for reporting requirements of spills or releases of E&P Waste or produced fluids. Submit a Site Investigation and Remediation Workplan (Form 27) when requested by the Director.

OPERATOR INFORMATON

Name of Operator: BONANZA CREEK ENERGY OPERATING COMPANY LLC			MPANY LLC	Operator	No: 8960] 1	Phone Numbers
Address: 410	17TH STREET SUITE #1400					Phone:	(720) 4406100
City: DENVE	R	State:	со	Zip:	80202	Mobile:	()_
Contact Person:	Brian Dodek		·			Email:	Bdodek@Bonanzacrk.c om

			IAL SPILL ill/Release F				28				
Initial Report Date:	01/16/2017	Date of	Discovery:	0	1/16/2017		Spill 7	Гуре:	Recer	nt Spill	
Spill/Release Point Lo	cation:										
Locationof Spill/Relea	ase: QTRQTR	NWSE	SEC _	2	TWP	9N	RNG	79W	MERIDI	IAN 6	_
Latitude: 40.779823	Longitude:	-106.23	3836			3					- T
'Municipality (if within	ı municipal boundarid	əs):			County	: JACKS	SON				
Reference Location:										21	Ωα
Facility Type: FLOWL	LINE	☐ Facility	y/Location II	D No	11						0.5
		No Ex	isting Facilit	ly or L	ocation ID	No.				20	74 Z
		☐ Well A	Pl No. (Onl	y if the	e referenc	e facility i	is well) _	05-	-	_ =	MC.
Fluid(s) Spilled/Releas	ed (please answer	Yes/No):								_)	21 to
Was one (1) barrel or	more spilled outside	of berms of	or secondar	y cont	tainment?		Yes			general general general	02 MC
Secondary contains any discharge from	ment, including wal n primary containmen	is & floor r It until clear	r egardiess nup occurs.	of co	nstructio	n materia	ıl, must b	e sufficie	ntly impervi	ous to ent	tain II
Were Five (5) barrels	or more spilled?	Yes								-	(A)
Estimated Total Spill Vo	olume: use same ran	ges as othe	ers for value	es:							
Estin	mated Oil Spill Volum	ıe(bbl):	0	_	Estir	nated Co	ındensate	Spill Vol	lume(bbl):_	0	
Estimated Flow Ba	ack Fluid Spill Volum	ıe(bbl):	0	_	Estimate	d Produc	ed Water	Spill Vol	lume(bbl):_	>=5 and <	100
Estimated Other E&	kP Waste Spill Volum	ie(bbl):	0	_	Estin	nated Dri	lling Fluid	Spill Vol	lume(bbl):	0	5-12
Specify:											
Land Use:											
Current Land Use:	NON-CROP LAND		Oth	er(Spe	ecify):	_					_
Weather Condition:	26°F, cloudy, snow	covered									
Surface Owner:	FEDERAL		Oth	rer(Sp	ecify):						_
Check if impacted or the	hreatened by spill/F	Release (pi	ease answ	er Ye:	s/No to al	I that ap	ply):				
Waters of the State [As defined in COG	Residence/Occ	•	cture 🔲	Lives	stock 🔲	Pub	lic Byway	■ Su	urface Wate	r Supply A	геа

Describe what is known about the spill/release event (what happened - including how it was stopped, contained, and recovered): A water injection line failed and released produced water to the ground, outside of containment. With current snow cover at the site, the current estimated release volume is 50 bbls. The release occurred 60 feet west of the Pierre B tank battery. The line and associated injection wells were immediately shut in to stop the release. A vac truck will be called out to recover any pooled fluid. Environmental personnel will assess the impact to the surface. Remediation details will be submitted in a subsequent Form 19. The line will either be replaced or repaired and pressure tested prior to being put back into service. List Agencies and Other Parties Notified: OTHER NOTIFICATIONS Date Agency/Party Contact Phone Response 1/16/2017 Jackson County Kent Crowder on file Notified of release 1/16/2017 COGCC Kris Neidel on file Notified of release via eForm 19 BLM 1/16/2017 on file Notified of release via WIS submittal SPILL/RELEASE DETAIL REPORTS Supplemental Report Date: 01/26/2017 #1 **FLUIDS** BBL's SPILLED BBL's RECOVERED Unknown OIL 8 **CONDENSATE** 0 50 PRODUCED WATER 0 0 DRILLING FLUID 186 FLOW BACK FLUID 0 OTHER E&P WASTE 0 specify: Was spill/release completely contained within berms or secondary containment? NO Was an Emergency Pit constructed? NO Secondary containment, including walls & floor regardless of construction material, must be sufficiently impervious to contain any discharge from primary containment until cleanup occurs. A Form 15 Pit Report shall be submitted within 30 calendar days after the construction of an emergency pit Impacted Media (Check all that apply) **⊠** Soil Groundwater Surface Water Dry Drainage Feature Surface Area Impacted: Length of Impact (feet): Width of Impact (feet): 55 Depth of Impact (feet BGS): 8 Depth of Impact (inches BGS): How was extent determined? The extent was determined via visual dileneation digging into the snow cover, field screening, and laboratory analysis. Soil/Geology Description: Bosler Sandy Loam Number Water Wells within 1/2 mile radius: 0 Depth to Groundwater (feet BGS) 15 Surface Water ____ If less than 1 mile, distance in feet to nearest Water Well 2816 None None X

Wetlands None 🔀

Livestock None 🔀

Springs

Occupied Building 382 None 🗐

None IX

Additional Spill Details Not Provided Above:

Following the release, the soil above the flowline was excavated to expose and repair the flowline. The injection line was successfully repaired and pressure tested. Soil samples were collected to confirm the soil was compliant with COGCC Table 910-1 standards. The stockpile of excavated soil was compliant with COGCC Table 910-1 standards and was used to backfill the flowline excavation. The samples collected from the excavation were also compliant with COGCC Table 910-1 standards. Surface Soil Samples SS06 and SS07 slightly exceeded standards for benzene/SAR and SAR, respectively. Due to the compliant levels of EC and pH on the surface, BCEOC plans to monitor vegetation growth to determine if the elevated SAR will affect revegetation. Surface Soil Sample SS06 will be resampled to confirm compliance with the COGCC Table 910-1 benzene standard. Even if a compliant soil sample is collected at SS06, BCEOC will not request closure until spring when snow cover is gone and the full release footprint can be checked visually. BCEOC has scheduled sampling of the four nearby monitoring wells as requested. Weather has been and continues to be unfavorable at the site. Heavy snow cover still persists since the release. BCEOC will attempt to sample the monitoring wells on 3/9/17. Results will be submitted in a subsequent Form 19.

CORRECTIVE ACTIONS

#1 Supplemental Report Date: 01/26/	2017			
Cause of Spill (Check all that apply) Human	Error 🔀 Equipment Failure	Historical-Unknown		
Other (s	pecify)			
Describe Incident & Root Cause (include specific eq	uipment and point of failure)			
An injection line failed due to internal corrosion.				
Describe measures taken to prevent the problem(s)	from reoccurring:			
The flowline was repaired, successfully pressure	ested, and returned to service. BCI	OC continues to analyze water	and corro	sion
inhibitor treatment volumes in the field to reduce of	orrosion failures.	•		0
			<u>~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~</u>	000
Volume of Soil Excavated (cubic yards): 66			3	CHIN
Disposition of Excavated Soil (attach documentation)	Onsite Treatment		-435 O
Disposition of Excavated Soil (attach documentation		7	20	110 H
	Other (specify) Used to ba	ckfill the excavation		0_0
Volume of Impacted Ground Water Removed (bbls):	0		200	
· · ·				요중독
Volume of Impacted Surface Water Removed (bbls):	O		9	유교의
	REQUEST FOR CLOSURE		تن	319
Spill/Release Reports should be closed when in actions will take place under an approved Form	npacts have been remediated or v 27.	when further investigation and	correctiv	ve
Basis for Closure: Corrective Actions Comp	leted (documentation attached)			
Work proceeding under a	in approved Form 27			
Form 27 Remediation Pr	oject No:			
OPERATOR COMMENTS:				
Within the 1/2 mile radius there are 17 ground water	monitoring wells.			
I hereby certify all statements made in this form are	to the best of my knowledge true, o	correct, and complete.		
Signed:	Print Name:	Brian Dodek		
Title: Environmental Supervisor Date:	03/08/2017 Email:	Bdodek@Bonanzacrk.com		
COA Type Description				
Please provid	e and explanation for 50bbls sp	illed and 0 recovered.		

Attachment Check List

Att Doc Num	Name
401227696	SPILL/RELEASE REPORT(SUPPLEMENTAL)
401228456	ANALYTICAL RESULTS
401230942	FORM 19 SUBMITTED

Total Attach: 3 Files

General Comments

User Group	Comment	Comment Date
Agency	Units of sample depth are reported in feet, it is believed that the depth unit is reported in inches.	03/10/2017

Total: 1 comment(s)

State of Colorado Oil and Gas Conservation Commission

CO

1120 Lincoln Street, Suite 801, Denver, Colorado 80203 Phone: (303) 894-2100 Fax: (303) 894-2109 401242620

Date Received:
03/24/2017

Document Number:

Spill report taken by:
NEIDEL, KRIS

Spill/Release Point ID: 448972

SPILL/RELEASE REPORT (SUPPLEMENTAL)

This form is to be submitted by the party responsible for the oil and gas spill or release. Refer to COGCC Rule 906.b. for reporting requirements of spills or releases of E&P Waste or produced fluids. Submit a Site Investigation and Remediation Workplan (Form 27) when requested by the Director.

OPERATOR INFORMATON

Name of Operator	BONANZA CREEK ENERGY OPE	RATING CO	MPANY LLC	Operator	No:	8960	[Phone Numbers
Address: 410 1	17TH STREET SUITE #1400						Phone:	(720) 225-6653
City: DENVER		State:	СО	Zip:	80202		Mobile;	
Contact Person:	Brian Dodek						Email:	bdodek@bonanzacrk.c om
			PILL/RELE/ ease Report D		ORT 185628			

INITIAL SPILL/RELEASE REPORT Initial Spill/Release Report Doc# 401185628	Ω			
Initial Report Date: 01/16/2017 Date of Discovery: 01/16/2017	Spill Type	e: Rece	nt Spill	
Spill/Release Point Location:				
Locationof Spill/Release: QTRQTR NWSE SEC 2 TWP 9N	RNG 7	9W MERIC	DIAN 6	
Latitude: 40.779823 Longitude: , -106.233836				
'Municipality (if within municipal boundaries): County: JACKS	ON		2	റെ ത
Reference Location:				0.85
Facility Type: FLOWLINE Facility/Location ID No			APR	745E
☐ No Existing Facility or Location ID No.			~	젊었
Well API No. (Only if the reference facility is	s well)0	5		21.5×=
Fluid(s) Spilled/Released (please answer Yes/No):			E	교생물
Was one (1) barrel or more spilled outside of berms or secondary containment?	Yes	_	 	125 E
Secondary containment, including walls & floor regardless of construction materia any discharge from primary containment until cleanup occurs.	I, must be s	ufficiently imperv	rious tacor	tain =
Were Five (5) barrels or more spilled? Yes				
Estimated Total Spill Volume: use same ranges as others for values				
Estimated Oil Spill Volume(bbl): 0 Estimated Cor	ndensate Sp	ill Volume(bbl):	0	
Estimated Flow Back Fluid Spill Volume(bbl): 0 Estimated Product	ed Water Sp	ill Volume(bbl):	>=5 and <	<100
Estimated Other E&P Waste Spill Volume(bbl): 0 Estimated Drill	ling Fluid Sp	ill Volume(bbl):	0	
Specify:				_
Land Use:				
Current Land Use: NON-CROP LAND Other(Specify):				
Weather Condition: 26°F, cloudy, snow covered				
Surface Owner: FEDERAL Other(Specify):				
Check if impacted or threatened by spill/Release (please answer Yes/No to all that app	oly):			
Waters of the State Residence/Occupied Structure Livestock Publi As defined in COGCC 100-Series Rules	ic Byway 🔲	Surface Wat	er Supply A	Area

Date 1/16/2017 1/16/2017 1/16/2017	Agency/Party Jackson County COGCC BLM	Contact Kent Cro		Phone			
1/16/2017 1/16/2017 1/16/2017 1/16/2017 #1 Supple FLUIDS OIL CONDENSATE PRODUCED WA DRILLING FLUID FLOW BACK FL OTHER E&P WA	Jackson County COGCC BLM	Kent Cro	wder	Phone			
1/16/2017 1/16/2017 1/16/2017 1/16/2017 #1 Supple FLUIDS OIL CONDENSATE PRODUCED WA DRILLING FLUID FLOW BACK FL OTHER E&P WA	Jackson County COGCC BLM	Kent Cro			`		
#1 Supple FLUIDS OIL CONDENSATE PRODUCED WA DRILLING FLUIL FLOW BACK FL OTHER E&P WA	COGCC			-on file		Response	
#1 Supple FLUIDS OIL CONDENSATE PRODUCED WA DRILLING FLUII FLOW BACK FL OTHER E&P WA	BLM	Kris Neid	el)	Notified of release	
#1 Supple FLUIDS OIL CONDENSATE PRODUCED WA DRILLING FLUII FLOW BACK FL OTHER E&P WA				-on file	9	Notified of release via eFo	rm 19
FLUIDS OIL CONDENSATE PRODUCED WA DRILLING FLUID FLOW BACK FLUID OTHER E&P WA	emental Report Date	_!		-on file	•	Notified of release via WIS	submittal
FLUIDS OIL CONDENSATE PRODUCED WA DRILLING FLUID FLOW BACK FLUID OTHER E&P WA	emental Report Date	SF	PILL/RELEASE	DETAIL R	REPORTS	=	· · · · · ·
FLUIDS OIL CONDENSATE PRODUCED WA DRILLING FLUID FLOW BACK FLUID OTHER E&P WA		e: 03/24	1/2017			****	
CONDENSATE PRODUCED WA DRILLING FLUIT FLOW BACK FL OTHER E&P WA	BBL's	SPILLED	BBL's RECC	VERED	Unknowr	1	
PRODUCED WA DRILLING FLUID FLOW BACK FL OTHER E&P WA		0		0	100		
DRILLING FLUID FLOW BACK FL OTHER E&P WA		0		0			
FLOW BACK FL OTHER E&P WA	ATER	50		0			
OTHER E&P WA		0		0			
	 _UID	0		0			
specify:	ASTE	0		0			
							
Secondary co any discharge	e from primary conta	g walls & flo inment until o	oor regardiess o deanup occurs.	f construct	tion mater	Was an Emergency Pit co rial, must be sufficiently imper- ction of an emergency pit	
Impacted Media	(Check all that apply	y) 🔀 Soil	☐ Ground	water	Surfac	e Water 🔲 Dry Drain	age Feature
Surface A	Area Impacted: Leng	gth of Impact	(feet): 75			Width of Impact (feet)	_
	Depth of	Impact (feet	BGS): 8	_		Depth of Impact (inches BGS):	
How was extent	determined?	(6.)		_			
The extent was o	determined via visual	I delineation of	digging into the s	now cover,	field scree	ning, and laboratory analysis.	
Soil/Geology Des	escription:						
Bosler Sandy Lo	oam					******	
Depth to Ground	dwater (feet BGS)	15	Nun	nber Water	Wells with	in 1/2 mile radius: 0	,
If less than 1 mile	le, distance in feet to	nearest 1	Water Well	2816 Non	ne 🗏	Surface Water	_ None ⊠
			Wetlands	Non	ne 🔀	Springs	_ None ⊠i
			Livestock	Non	ie 🔯	Occupied Building38:	None

BCEOC collected a follow-up sample to the previous non-compliant SS06. The new sample (SS06R) is now compliant with the COGCC Table 910-1 benzene standard. As follow-up to the COGCC questions on the previous supplemental Form 19: 1) The release occurred beneath heavy snow cover. The release volume of 50 bbl is a loose estimate based on the estimated spill footprint. Holes were hand dug through the snow to check for the presence of produced water. Though the release samples are compliant with the COGCC Table 910-1 hydrocarbon standards, BCEOC will wait until the snow cover is gone to visually confirm that there are no additional impacts on the ground surface. 2) The previously reported depth units are correct. While the surface impact is only a few inches deep, the flowline release occurred at 8 feet bgs, so that number was reported as total depth.

			RI	EQUEST FOR CLO	OSURE		
			closed when impa approved Form 27.		ediated or v	vhen further investigat	tion and corrective
Basis for Closu	ure:	Corrective	e Actions Complete	ed (documentation at	tached)		
		Work pro	ceeding under an a	pproved Form 27			
		Form 27	Remediation Projec	et No:			
OPERATOR C	OMM	ENTS:					
			r.				
I hereby certify	all stat	ements made	in this form are to t	the best of my knowl	edge true, c	orrect, and complete.	
Signed:				Prir	nt Name:	Brian Dodek	
Title: Env Su	perviso	or	Date:	03/24/2017	Email:	bdodek@bonanzacr	k.com
COA Type			Description				_
			Atta	chment Chec	k List		
Att Doc Num	1	<u>Name</u>					
401242620	5	SPILL/RELE/	ASE REPORT(SL	JPPLEMENTAL)			
401242664	1	NALYTICAL	RESULTS				
401246308	F	FORM 19 SU	BMITTED		·		1
Total Attach: 3 F	iles						
			<u>G</u>	<u>eneral Comme</u>	<u>nts</u>		
User Group	Con	<u>iment</u>					Comment Date
							Stamp Upon

Total: 0 comment(s)

CULTARK TO AMID: 43

Approval

BUREAU OF LAND HOME COLO STATE OFFICE DENVER

State of Colorado Oil and Gas Conservation Commission

1120 Lincoln Street, Suite 801, Denver, Colorado 80203 Phone: (303) 894-2100 Fax: (303) 894-2109

Date Received: 01/31/2017

> Spill report taken by: NEIDEL, KRIS

Document Number:

401198611

Spill/Release Point ID: 449099

SPILL/RELEASE REPORT (INITIAL)

This form is to be submitted by the party responsible for the oil and gas spill or release. Refer to COGCC Rule 906.b. for reporting requirements of spills or releases of E&P Waste or produced fluids. Submit a Site Investigation and Remediation Workplan (Form 27) when requested by the Director.

OPERATOR INFORMATON

Name of Operator	SANDRIDGE EXPLORATION &	PRODUCTION	LLC	Operator	No: 10598		Phone Numbers
Address: 123 F	ROBERT S KERR AVE			_		Phone:	(405) 590-7483
City: OKLAHON	MA CITY	State:	ОК	Zip:	73102	Mobile:	(405) 590-7483
Contact Person:	Clay Harwell					Email:	charwell@sandridgeen ergy.com

INITIAL COLLIDER EASE DEDOOT

			ort Doc# 4011986	511		
Initial Report Date:	01/31/2017	Date of Discovery:	01/30/2017	Spill Type:	Historical	Release
Spill/Release Point Lo	cation:					<u> </u>
Locationof Spill/Relea	ase: QTRQTR N	NWNE SEC 7	TWP 7N	RNG 80W	MERIDIA	AN 6
Latitude: 40.59830	6 Longitude:	-106.415469				
'Municipality (if withir	n municipal boundaries):	County: JACK	SON		
Reference Location:						
Facility Type: WELL	PAD	Facility/Location ID N	lo			
	[No Existing Facility o	r Location ID No.			
	ī	Well API No. (Only if	the reference facility	is well) 05-05	7-06499	
Fluid(s) Spilled/Releas	ed (please answer Y	es/No):				_
Was one (1) barrel or	more spilled outside c	of berms or secondary co	ontainment?	Yes		
	ment, including walls n primary containment (& floor regardless of ountil cleanup occurs.	construction mater	ial, must be sufficie	ntly impervio	ous to contain
Were Five (5) barrels	or more spilled?	No				
Estimated Total Spill Vo	olume: use same range	es as others for values				
Estin	mated Oil Spill Volume	(bbl): Unknown	Estimated C	ondensate Spill Vol	lume(bbl):	Unknown
Estimated Flow B	ack Fluid Spill Volume	(bbl): 0	Estimated Produ	iced Water Spill Vol	lume(bbl):	Unknown
Estimated Other E8	AP Waste Spill Volume	(bbl): 0	Estimated Di	rilling Fluid Spill Vol	lume(bbl):	0
		· · · · · · · · · · · · · · · · · · ·				
Specify:						
• • —						
Land Use:	NON-CROP LAND	Other(Specify):			
Land Use: Current Land Use:	NON-CROP LAND Clear, 0-20 degrees F		Specify):	-		
Land Use: Current Land Use:	Clear, 0-20 degrees F	· · · · · · · · · · · · · · · · · · ·	Specify):	- 1		
Land Use: Current Land Use: Weather Condition: Surface Owner:	Clear, 0-20 degrees F FEE	Other(Specify):			
Land Use: Current Land Use: Weather Condition:	Clear, 0-20 degrees F FEE hreatened by spill/Re	Other(Specify): /es/No to all that ap	oply):		Supply Area

Describe what is known about the spill/release event (what happened -- including how it was stopped, contained, and recovered): On, January 19, 2017, historical hydrocarbon impacts were observed during hydrovac activities around the wellhead. The limits of the hydrovac excavation were approximately 6 feet by 3 feet by 1 foot deep. No groundwater was encountered. One soil sample was collected for BTEX and TPH analysis. Laboratory analytical results were received on January 31, 2017. TPH concentrations were 7,600 mg/kg and benzene concentrations were 9.1 mg/kg. These concentrations exceed the COGCC Table 910-1 allowable limits. Delineation of the soil impacts is ongoing. List Agencies and Other Parties Notified: OTHER NOTIFICATIONS Date Agency/Party Contact **Phone** Response 1/31/2017 Jackson County Kent Drowder 970-723-4660 Email - No Response

OPERATOR COMMENTS:

I herel	by certify all statements made in	this form are to t	he best of my kn	owledge true, c	orrect, and complete.	
Signe	d:			Print Name:	Jess Alexander	
Title:	Project Env. Scientist	Date:	01/31/2017	Email:	jalexander@ltenv.com	

COA Type	Description
	Any visible hydrocarbon should be removed upon discovery, per rule 907.a.(1).
	From discussion with operator is understood that the spill extent will be determined when weather conditions allow (after snowmelt).
	Cellar and local area should be monitored on a regular basis until site conditions allow full remediation.

Attachment Check List

Att Doc Num	<u>Name</u>
401198611	SPILL/RELEASE REPORT(INITIAL)
401198652	ANALYTICAL RESULTS
401198729	TOPOGRAPHIC MAP
401201291	FORM 19 SUBMITTED

Total Attach: 4 Files

General Comments

User Group	Comment	Comment Date
	Vi.	Stamp Upon Approval

Total: 0 comment(s)

2017 APR 10 AM In: L-3

BUREAU OF LAND HOME COLOSTATE OFFICE SENTER

State of Colorado Oil and Gas Conservation Commission

CO DNR

1120 Lincoln Street, Suite 801, Denver, Colorado 80203 Phone: (303) 894-2100 Fax: (303) 894-2109 401201164

Date Received: 02/02/2017

Document Number:

Spill report taken by:
NEIDEL, KRIS
Spill/Release Point ID:

449099

SPILL/RELEASE REPORT (SUPPLEMENTAL)

This form is to be submitted by the party responsible for the oil and gas spill or release. Refer to COGCC Rule 906.b. for reporting requirements of spills or releases of E&P Waste or produced fluids. Submit a Site Investigation and Remediation Workplan (Form 27) when requested by the Director.

OPERATOR INFORMATON

Name of Operator	: SANDRIDGE EXPLORATION & F	PRODUCTION	ILLC	Operator	No: 10598	'	Phone Numbers
Address: 123 I	ROBERT S KERR AVE					Phone:	(405) 590-7483
City: OKLAHOI	MA CITY	State:	ОК	Zip:	73102	Mobile:	(405) 590-7483
Contact Person:	Clay Harwell					Email:	charwell@sandridgeen ergy.com

INITIAL SPILL/RELEASE REPORT

Initial Report Date:	01/31/2017	Date of	Discovery:	01/30/2017	Spill Ty	ype: Historic	cal Release
Spill/Release Point Lo	cation:						
Locationof Spill/Relea	se: QTRQTR	NWNE	SEC 7	TWP_7N	RNG	80W MER	IDIAN 6
Latitude: 40.598306	6 Longitude:	-106.415	5469				
'Municipality (if within	municipal boundarie	======================================		County: JACK	SON		
Reference Location:							
Facility Type: WELL I	PAD	Facility	/Location ID I	No			
		☐ No Exis	sting Facility	or Location ID No.			
		Well AF	Pl No. (Only i	f the reference facility	is well)	05-057-06499	
Fluid(e) Spilled(Polose	ed (please answer '	Yes/No):			_		
timinfo) ohillentuelegs	1F						
Was one (1) barrel or		of berms o	r secondary o	containment?	Yes		
Was one (1) barrel or Secondary contains	more spilled outside ment, including wall	ls & floor re	egardless of	containment?		 sufficiently impe	rvious to contail
Was one (1) barrel or Secondary contains any discharge from	more spilled outside ment, including wall primary containmen	ls & floor re t until clean	egardless of			sufficiently impe	rvious to contair
Was one (1) barrel or Secondary contains any discharge from Were Five (5) barrels	more spilled outside ment, including wall primary containment or more spilled?	is & floor re t until clean No	egardless of up occurs.			sufficiently impe	rvious to contair
Was one (1) barrel or Secondary contains any discharge from Were Five (5) barrels Estimated Total Spill Vo	more spilled outside ment, including wall primary containment or more spilled? lume: use same rang	is & floor re t until clean No ges as othe	egardless of up occurs. rs for values	construction mater	ial, must be		
Was one (1) barrel or Secondary contains any discharge from Were Five (5) barrels Estimated Total Spill Vo	more spilled outside ment, including walk primary containment or more spilled? slume: use same rang nated Oil Spill Volum	is & floor re t until clean No ges as othe e(bbl):	egardless of up occurs. rs for values Unknown	construction mater	ial, must be	Spill Volume(bbl)	Unknown
Was one (1) barrel or Secondary contains any discharge from Were Five (5) barrels Estimated Total Spill Vo Estim	more spilled outside ment, including wall primary containment or more spilled? lume: use same rang nated Oil Spill Volumeck Fluid Spill Volume	s & floor ret until clean No ges as othe e(bbl):	egardless of up occurs. rs for values Unknown	Estimated Produ	ial, must be condensate	Spill Volume(bbl) Spill Volume(bbl)	: Unknown
Was one (1) barrel or Secondary contains any discharge from Were Five (5) barrels Estimated Total Spill Vo Estim Estimated Flow Ba	more spilled outside ment, including walk primary containment or more spilled? slume: use same rang nated Oil Spill Volum	s & floor ret until clean No ges as othe e(bbl):	egardless of up occurs. rs for values Unknown	Estimated Produ	ial, must be condensate	Spill Volume(bbl)	: Unknown
Was one (1) barrel or Secondary contains any discharge from Were Five (5) barrels Estimated Total Spill Vo Estim Estimated Flow Ba Estimated Other E& Specify:	more spilled outside ment, including wall primary containment or more spilled? lume: use same rang nated Oil Spill Volumeck Fluid Spill Volume	s & floor ret until clean No ges as othe e(bbl):	egardless of up occurs. rs for values Unknown	Estimated Produ	ial, must be condensate	Spill Volume(bbl) Spill Volume(bbl)	: Unknown
Was one (1) barrel or Secondary contains any discharge from Were Five (5) barrels Estimated Total Spill Vo Estim Estimated Flow Ba Estimated Other E& Specify: Land Use:	more spilled outside ment, including walk primary containment or more spilled? Jume: use same rang nated Oil Spill Volumeck Fluid Spill Volumeck Fluid Spill Volumeck Fluid Spill Volumeck P Waste Spill Volumeck	s & floor ret until clean No ges as othe e(bbl):	egardless of up occurs. rs for values Unknown 0	Estimated C Estimated Produ	ial, must be condensate uced Water rilling Fluid	Spill Volume(bbl) Spill Volume(bbl) Spill Volume(bbl)	: Unknown : Unknown : 0
Was one (1) barrel or Secondary contains any discharge from Were Five (5) barrels Estimated Total Spill Vo Estim Estimated Flow Ba Estimated Other E& Specify: Land Use: Current Land Use:	more spilled outside ment, including wall primary containment or more spilled? Is a same ranguated Oil Spill Volumet of Spill Volumet P Waste Spill Volumet NON-CROP LAND	is & floor ret until clean No ges as othe e(bbl): e(bbl):	egardless of up occurs. rs for values Unknown 0	Estimated C Estimated Produ	ial, must be condensate uced Water rilling Fluid	Spill Volume(bbl) Spill Volume(bbl)	: Unknown : Unknown : 0
Was one (1) barrel or Secondary contains any discharge from Were Five (5) barrels Estimated Total Spill Vo Estimated Flow Ba Estimated Other E& Specify: Land Use: Current Land Use: Weather Condition:	more spilled outside ment, including wall primary containment or more spilled? Is a same ranguated Oil Spill Volumet of Spill Volumet P Waste Spill Volumet NON-CROP LAND Clear, 0-20 degrees	is & floor ret until clean No ges as othe e(bbl): e(bbl):	egardless of up occurs. rs for values Unknown 0 0 Other	Estimated C Estimated Produ Estimated D Estimated D	ial, must be condensate uced Water rilling Fluid	Spill Volume(bbl) Spill Volume(bbl) Spill Volume(bbl)	: Unknown : Unknown : 0
Was one (1) barrel or Secondary contains any discharge from Were Five (5) barrels Estimated Total Spill Vo Estim Estimated Flow Ba Estimated Other E& Specify: Land Use: Current Land Use:	more spilled outside ment, including wall primary containment or more spilled? Is a same ranguated Oil Spill Volumet of Spill Volumet P Waste Spill Volumet NON-CROP LAND Clear, 0-20 degrees	is & floor ret until clean No ges as othe e(bbl): e(bbl):	egardless of up occurs. rs for values Unknown 0 0 Other	Estimated C Estimated Produ	ial, must be condensate uced Water rilling Fluid	Spill Volume(bbl) Spill Volume(bbl) Spill Volume(bbl)	: Unknown : Unknown : 0
Was one (1) barrel or Secondary contains any discharge from Were Five (5) barrels Estimated Total Spill Vo Estimated Flow Ba Estimated Other E& Specify: Land Use: Current Land Use: Weather Condition:	more spilled outside ment, including walk primary containment or more spilled? Illume: use same rang nated Oil Spill Volumeck Fluid Spill Volumeck Fluid Spill Volumeck Fluid Spill Volumeck Fluid Spill Volumeck Fluid Spill Volumeck Fluid Spill Volumeck Fluid Spill Volumeck Fluid Spill Volumeck Fluid Spill Volumeck Fluid Spill Volumeck Fluid Spill Volumeck Fluid Spill Volumeck Fluid Spill Volumeck Fluid Spill Volumeck Fluid Spill Volumeck Fluid Flu	s & floor ret until clean No ges as othe (bbl): e(bbl):	egardless of up occurs. rs for values Unknown 0 0 Other	Estimated C Estimated Produ Estimated D (Specify):	ial, must be condensate uced Water rilling Fluid	Spill Volume(bbl) Spill Volume(bbl) Spill Volume(bbl)	: Unknown : Unknown : 0

#1 Supplement FLUIDS OIL CONDENSATE PRODUCED WATER DRILLING FLUID FLOW BACK FLUID OTHER E&P WASTE specify: Was spill/release com Secondary contains	son County tal Report Date:	Contact Kent Drow	der LL/RELEASE	Phone 970-723	3-4660	Response Email - No Response	1	
#1 Supplement FLUIDS OIL CONDENSATE PRODUCED WATER DRILLING FLUID FLOW BACK FLUID OTHER E&P WASTE specify: Was spill/release com Secondary contains	son County tal Report Date: BBL's	Kent Drow	der LL/RELEASE	<u>Phone</u> 970-723	3-4660	Email - No Response		
#1 Supplement FLUIDS OIL CONDENSATE PRODUCED WATER DRILLING FLUID FLOW BACK FLUID OTHER E&P WASTE specify: Was spill/release com Secondary contains	son County tal Report Date: BBL's	Kent Drow	LL/RELEASE	970-723		Email - No Response		
#1 Supplement FLUIDS OIL CONDENSATE PRODUCED WATER DRILLING FLUID FLOW BACK FLUID OTHER E&P WASTE specify: Was spill/release com Secondary contains	tal Report Date: BBL's	SPI: 02/02/2	LL/RELEASE			<u> </u>		
FLUIDS OIL CONDENSATE PRODUCED WATER DRILLING FLUID FLOW BACK FLUID OTHER E&P WASTE specify: Was spill/release com Secondary contains	BBL's	02/02/	2017	DETAIL RE	EPORTS	\$		
FLUIDS OIL CONDENSATE PRODUCED WATER DRILLING FLUID FLOW BACK FLUID OTHER E&P WASTE specify: Was spill/release com Secondary contains	BBL's					•		
OIL CONDENSATE PRODUCED WATER DRILLING FLUID FLOW BACK FLUID OTHER E&P WASTE specify: Was spill/release com Secondary contains		SPILLED	BBL's RECC					က (၁၈ _
CONDENSATE PRODUCED WATER DRILLING FLUID FLOW BACK FLUID OTHER E&P WASTE specify: Was spill/release comp				VERED	Unknow	n	2017	C RU
PRODUCED WATER DRILLING FLUID FLOW BACK FLUID OTHER E&P WASTE specify: Was spill/release comp					X		APR	-1;EQ
DRILLING FLUID FLOW BACK FLUID OTHER E&P WASTE specify: Was spill/release com Secondary contains					X		<i>2</i> 0	
FLOW BACK FLUID OTHER E&P WASTE specify: Was spill/release comp					X		0	S _ S
OTHER E&P WASTE specify: Was spill/release compared contains		0		0	m		AM 0:	0.53
OTHER E&P WASTE specify: Was spill/release compared contains		0		0				HIT
Was spill/release com		0		0			చ్	E TE
Secondary contains	4							En
Secondary contains	pletely containe	d within berm	s or secondary	containment	? N	O Was an Emergency Pit con	structed?	NO
any visunarya nom	ment, includin g n primary contait	g walls & floo nment until cle	or regardiess o eanup occurs.	f construction	on mate	rial, must be sufficiently impervi	ious to con	tain
			•	ys after the	constru	ction of an emergency pit		
Impacted Media (Ched	ck all that apply) 🔀 Soil	☐ Ground	water [Surfac	ce Water Dry Draina	ge Featur	е
Surface Area In	npacted: Leng	th of Impact (f	eet): 6			Width of Impact (feet):	3	
		mpact (feet B		_		Depth of Impact (inches BGS):		_
How was extent deterr	mined?			_				_
The extent of impact a		2-07H has not	vet been deterr	nined				
			•					
Soil/Geology Descripti	ion:							
Bosler sandy loam								
Depth to Groundwater	(feet BGS)	75	Nun	nber Water V	Vells with	nin 1/2 mile radius: 2		
If less than 1 mile, dist	tance in feet to i	nearest W	ater Well	622 None		Surface Water 1944	l None i	
		V	 Vetlands	None	: X	Springs	- None I	X i
		ı	_ivestock	None	X	Occupied Building 2248	_ None ∣	3
Additional Spill Details	Not Provided A	bove:						

#1 Supple	mental Report Date:	02/02/20	217			
Cause of Spill (C	heck all that apply)	Human Eri	or 📗 Equi	pment Failure	▼ Historical-Unknop	wn
		Other (spe	cify)			
Describe Inciden	t & Root Cause (inclu	ude specific equi	oment and point o	f failure)		
Historical hydro	ocarbon impact was	observed. The re	oot cause of the re	elease cannot b	pe determined.	
Describe measu	res taken to prevent t	the problem(s) fr	om reoccurring:			
Routine mainte	enance and monitoring	ng of equipment				
Volume of Soil E	xcavated (cubic yard	s): 1				
Disposition of Ex	cavated Soil (attach	documentation)	Offsite Dispo		Onsite Treatment	
Volume of Impac	ted Ground Water Re	emoved (bbls):	0			
Volume of Impac	ted Surface Water Re	emoved (bbls):	0			
			REQUEST FOR	CLOSURE		
	Reports should be c se place under an a			remediated or	when further investiga	tion and corrective
Basis for Closu	re: Corrective	Actions Comple	ted (documentation	on attached)		
	Work proc	eeding under an	approved Form 2	7		22
	Form 27 R	temediation Proje	ect No:			
OPERATOR CO	DMMENTS:					
There is no imme		s of the State du			now and frozen ground a will continue delineation a	
I hereby certify a	all statements made i	n this form are to	the best of my ki	nowledge true,	correct, and complete.	
Signed:			•	Print Name:	Jess Alexander	
	Env. Scientist	Date:	02/02/2017	Email:	jalexander@ltenv.co	om
004 7	<u> </u>	D!-4!				-
COA Type	T	<u>Description</u>				
(*)		Att	achment Ch	neck List		
Att Doc Num	<u>Name</u>					
401201164	SPILL/RELEA	SE REPORT(S	UPPLEMENTA	L)		
401201174	ANALYTICAL	RESULTS				
401201175	TOPOGRAPH	IC MAP				
401202221	FORM 19 SUE	BMITTED				
Total Attach: 4 Fi	es		Conoral Co-	monto		
User Group	Comment	<u></u>	<u>Seneral Com</u>	<u>ments</u>		Comment Date
Oser Group	<u> </u>			36		Stamp Upon
						Approval

Total: 0 comment(s)

State of Colorado Oil and Gas Conservation Commission

CO DNR

1120 Lincoln Street, Suite 801, Denver, Colorado 80203 Phone: (303) 894-2100 Fax: (303) 894-2109 401218264

Date Received:

02/24/2017

Document Number:

Spill report taken by: NEIDEL, KRIS

Spill/Release Point ID: 449338

SPILL/RELEASE REPORT (INITIAL)

This form is to be submitted by the party responsible for the oil and gas spill or release. Refer to COGCC Rule 906.b. for reporting requirements of spills or releases of E&P Waste or produced fluids. Submit a Site Investigation and Remediation Workplan (Form 27) when requested by the Director.

OPERATOR INFORMATON

Name of Operato	SANDRIDGE EXPLORATION	& PRODUCTION	ILLC	Operator	No: 10598		Phone Numbers
Address: 123	ROBERT S KERR AVE					Phone	(405) 429-5562
City: OKLAHO	MA CITY	State:	ОК	Zip:	73102	Mobile:	(405) 203-6971
Contact Person:	Dale Birdwell					Email:	dbirdwell@sandridgeen ergy.com

INITIAL SPILL/RELEASE REPORT

nitial Report Date:	02/24/2017	Date of D	iscovery:	02/22/2017		Spill T	ype:	Recent Sp	ill
Spill/Release Point Lo	cation:								
Locationof Spill/Rele	ase: QTRQTR	NENE	SEC 32	TWP	7N	RNG	80W	MERIDIAN	6
Latitude: 40.54027	5 Longitude:	-106.3909	943				0 1-30		20
'Municipality (if within	municipal boundarie	es):		County	: JACKSC	N			
Reference Location:				_					APR
Facility Type: WELL	PAD	⊠ Facility/l	Location ID N	o	32475	2			0
<u> </u>		No Exist	ting Facility o	r Location ID	No.				
		Well AP	l No. (Only if	the reference	e facility is	well)	05-		
iuid(s) Spilled/Releas	sed (please answer	Yes/No):							
Was one (1) barrel or									0.0
Secondary contain any discharge fron	ment, including wal n primary containmen	is & floor re nt until cleanu	gardless of			Yes must be	e sufficier	ntly impervious (to con
Secondary contain any discharge from Were Five (5) barrels Estimated Total Spill Vo	ment, including wal n primary containmen s or more spilled? olume: use same ran	is & floor re at until cleanu No ges as others	gardless of up occurs.	construction		must be			to con
Secondary contain any discharge fron Were Five (5) barrels Estimated Total Spill Vo Esti	ment, including wal n primary containmen or more spilled?	Is & floor re at until cleanu No ges as others ne(bb!): >=	gardless of up occurs. s for values	construction Estir	n material,	must be	Spill Vol	ume(bbl):	
Secondary contain any discharge from Were Five (5) barrels Estimated Total Spill Vo Estin Estimated Flow B	ment, including wal n primary containment s or more spilled? plume: use same ran mated Oil Spill Volum	No ges as others ne(bbl): >=	gardless of up occurs. s for values and <5	construction Estir Estimate	n material,	must be	Spill Vol	ume(bbl): 	0
Secondary contain any discharge from Were Five (5) barrels Estimated Total Spill Vo Estin Estimated Flow B	ment, including wal n primary containment or more spilled? plume: use same ran mated Oil Spill Volum lack Fluid Spill Volum	No ges as others ne(bbl): >=	gardless of ip occurs. s for values 1 and <5	construction Estir Estimate	n material, mated Cone ed Produce	must be	Spill Vol	ume(bbl): 	0
Secondary contain any discharge from Were Five (5) barrels Estimated Total Spill Vo Estin Estimated Flow B	ment, including wal n primary containment or more spilled? plume: use same ran mated Oil Spill Volum lack Fluid Spill Volum	No ges as others ne(bbl): >=	gardless of ip occurs. s for values 1 and <5	construction Estir Estimate	n material, mated Cone ed Produce	must be	Spill Vol	ume(bbl): 	0
Secondary contain any discharge from Were Five (5) barrels Estimated Total Spill Vo Estimated Flow B Estimated Other Estimated Other Estimated Use:	ment, including wal n primary containment or more spilled? plume: use same ran mated Oil Spill Volum lack Fluid Spill Volum	No ges as others ne(bbl): >=	gardless of up occurs. s for values 1 and <5 0 0	construction Estir Estimate	n material, mated Cone ed Produce	must be	Spill Vol	ume(bbl): 	0
Secondary contain any discharge from Were Five (5) barrels Estimated Total Spill Vo Estimated Flow B Estimated Other Estimated Other Estimated Use:	ment, including wal in primary containment is or more spilled? Dume: use same ran mated Oil Spill Volum lack Fluid Spill Volum &P Waste Spill Volum	No ges as others ne(bbl): >=	gardless of up occurs. s for values 1 and <5 0 0	Estir Estimate Estimate	n material, mated Cone ed Produce	must be	Spill Vol	ume(bbl): 	0
Secondary contain any discharge from Were Five (5) barrels Estimated Total Spill Vo Estimated Flow B Estimated Other Estimated Other Estimated Other Estimated Use: Current Land Use: Weather Condition:	ment, including wal in primary containment is or more spilled? Dume: use same ran mated Oil Spill Volum lack Fluid Spill Volum &P Waste Spill Volum	No ges as others ne(bbl): ne(bbl):	gardless of ip occurs. s for values 1 and <5 0 0 Other(Estir Estimate Estimate	n material, mated Cone ed Produce	must be	Spill Vol	ume(bbl): 	0
Secondary contain any discharge from Were Five (5) barrels Estimated Total Spill Vo Estimated Flow B Estimated Other Estimated Other Estimated Other Estimated Use: Current Land Use: Weather Condition:	ment, including wal in primary containment is or more spilled? colume: use same ran mated Oil Spill Volum lack Fluid Spill Volum RP Waste Spill Volum NON-CROP LAND Mid 30's	is & floor real truntil cleanum No ges as others ne(bbl): >= ne(bbl):	gardless of ip occurs. s for values 1 and <5 0 0 Other(Estin Estimate Estin Specify):	n material, mated Con- ed Produce mated Drilli	must be	Spill Vol	ume(bbl): 	0
Secondary contain any discharge from Were Five (5) barrels Estimated Total Spill Vo Estimated Flow B Estimated Other Estimated Other Estimated Other Estimated Use: Current Land Use: Weather Condition: Surface Owner:	ment, including wall primary containments or more spilled? colume: use same ran mated Oil Spill Volumerack Fluid Spill Volumerack Fluid Spill Volumerack Fluid Spill Volumerack Fluid Spill Volumerack Fluid Spill Volumerack Fluid Spill Volumerack Fluid Spill Volumerack Fluid Spill Volumerack Fluid Spill Volumerack Fluid Spill Volumerack Fluid Spill Volumerack Fluid Spill Volumerack Fluid Spill Volumerack Fluid Spill Volumerack Fluid Spill Volumerack Fluid Spill Volumerack Fluid Spill Volumerack Fluid Spill Volumerack Fluid	No See as others See(bbl): See(bbl): See(bbl): See(bbl): See(bbl): See(bbl):	gardless of ip occurs. s for values 1 and <5 0 Other(Estin Estimate Estin Specify):	material, material, mated Con- ed Produce mated Drilli	must be	Spill Vol Spill Vol Spill Vol	ume(bbl): 	0 0

Describe what is known about the spill/release event (what happened -- including how it was stopped, contained, and recovered);

A hot oil truck was loading oil on the pad at the Veneta 1-32D SWD location. Approximately 28 barrels (bbl) of oil was loaded in to the truck. The vehicle operator shut down the loading operation to have a JSA signed. The vehicle operator and safety tech then noticed oil coming out of the truck. The 3-inch hose on the back of the truck did not have a cap on the end of the hose and 3 bbl of oil ran out in to a snow melt puddle. The vehicle operator forgot to shut a 3-inch vaive on the back of the truck. The release occurred approximately 10-feet southeast of the loading area on the pad. The vaive was immediately closed and a vacuum truck was called in and removed all of the released oil for offsite disposal. The soils within the release area will be evaluated and confirmation soil sampling will be conducted to verify that any potential petroleum hydrocarbon impacts have been removed.

List Agencies and Other Parties Notified:

OTHER NOTIFICATIONS

<u>Date</u>	Agency/Party	Contact	Phone	Response
2/24/2017	Jackson County	Kent Crowder	970-218-4532	Contatcted via phone - No comments
2/23/2017	COGCC	Kris Neidel	970-871-1963	Contatcted via email - Responded with no comments
2/24/2017	Surface Owner	Jack and Vaneta Haworth	970-723-4616	Contacted via phone - No comments

OPERATOR COMMENTS:

Signed:		Drin		
			nt Name:	Dale Birdwell
Title: Senior EH&S Specialist	Date: _	02/24/2017	Email:	dbirdwell@sandridgeenergy.com
COA Type Des	cription	· · · · · · · · · · · · · · · · · · ·		

Attachment Check List

Att Doc Num	<u>Name</u>	
401218264	SPILL/RELEASE REPORT(INITIAL)	
401218450	TOPOGRAPHIC MAP	
401219438	FORM 19 SUBMITTED	

Total Attach: 3 Files

General Comments

User Group	Comment	Comment Date
	Double checking valves to make sure that they are in the off postion should be incorporated into the JSA.	02/24/2017

Total: 1 comment(s)

State of Colorado Oil and Gas Conservation Commission

DNR CO

1120 Lincoln Street, Suite 801, Denver, Colorado 80203 Phone: (303) 894-2100 Fax: (303) 894-2109 401224420

Date Received:

03/03/2017

Document Number:

Spill report taken by: NEIDEL, KRIS

Spill/Release Point ID: 449338

SPILL/RELEASE REPORT (SUPPLEMENTAL)

This form is to be submitted by the party responsible for the oil and gas spill or release. Refer to COGCC Rule 906.b. for reporting requirements of spills or releases of E&P Waste or produced fluids. Submit a Site Investigation and Remediation Workplan (Form 27) when requested by the Director.

OPERATOR INFORMATON

Name of Operator	SANDRIDGE EXPLORATION & F	RODUCTION	LLLC	Operator	No: 10598	1	Phone Numbers
Address: 123 F	ROBERT S KERR AVE				_	Phone:	(405) 429-5562
City: OKLAHON	MA CITY	State:	ок	Zip:	73102	Mobile:	(405) 203-6971
Contact Person:	Dale Birdwell					Email:	dbirdwell@sandridgeen ergy.com

INITIAL SPILL/RELEASE REPORT

Initial Report Date:	02/24/2017	Date of D	Discovery:	02/22/2017	Sp	ill Type:	Recent Sp	pill
Spill/Release Point Lo	ocation:							
Locationof Spill/Rele	ease: QTRQTR	NENE	SEC 32	TWP_7N	N RN	G 80W	MERIDIAN	6
Latitude: 40.54027	75 Longitude:	-106.3909	943					
'Municipality (if withi	n municipal boundarie	s):		County: J	JACKSON			201
Reference Location:				_				7
Facility Type: WELL	PAD	Facility/l	Location ID No		324752			APR
		No Exist	ling Facility or	Location ID No	0.			0 0
		Well AP	l No. (Only if t	he reference fa	acility is well)	05-	-	<u> </u>
Fluid(s) Spilled/Reiea	sed (please answer)	Yes/No):						
	r more spilled outside	of berms or	secondary co	ntainment?	Yes		j	- 20
Was one (1) barrel o	nment, including wall	s & floor re	gardless of c				ntly impervious	to contain
Was one (1) barrel o Secondary contair any discharge fron	nment, including wall n primary containment	s & floor re	gardless of c				ently impervious	to contai
Was one (1) barrel o Secondary contair any discharge fron Were Five (5) barrels	nment, including wall in primary containment is or more spilled?	is & floor reg t until cleanu No	gardless of components.				ently impervious	to contai
Was one (1) barrel o Secondary contair any discharge from Were Five (5) barrels Estimated Total Spill V	nment, including wall in primary containment is or more spilled? olume: use same rang	is & floor reg t until cleanu No ges as others	gardless of components.	onstruction m	naterial, mus	t be sufficie	, ,	to contail
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Describe what is known about the spill/release event (what happened -- including how it was stopped, contained, and recovered):

A hot oil truck was loading oil on the pad at the Veneta 1-32D SWD location. Approximately 28 barrels (bbi) of oil was loaded in to the truck. The vehicle operator shut down the loading operation to have a JSA signed. The vehicle operator and safety tech then noticed oil coming out of the truck. The 3-inch hose on the back of the truck did not have a cap on the end of the hose and 3 bbl of oil ran out in to a snow melt puddle. The vehicle operator forgot to shut a 3-inch valve on the back of the truck. The release occurred approximately 10-feet southeast of the loading area on the pad. The valve was immediately closed and a vacuum truck was called in and removed all of the released oil for offsite disposal. The soils within the release area will be evaluated and confirmation soil sampling will be conducted to verify that any potential petroleum hydrocarbon impacts have been removed.

List Agencies and Other Parties Notified:

OTHER NOTIFICATIONS

Date	Agency/Party	Contact	Phone	Response
2/24/2017	Jackson County	Kent Crowder	970-218-4532	Contatcted via phone - No comments
2/23/2017	COGCC	Kris Neidel	970-871-1963	Contatcted via email - Responded wtih no comments
2/24/2017	Surface Owner	Jack and Vaneta Haworth	970-723-4616	Contacted via phone - No comments

SPILL/RELEASE DETAIL REPORTS

#1 Supplemental Repo	rt Date: 03/03/2	2017				
FLUIDS	BBL's SPILLED	BBL's RECOVE	RED Uni	known		
OIL	3		3			
CONDENSATE	0		0	E		
PRODUCED WATER	0		0			
DRILLING FLUID	0		0			
FLOW BACK FLUID	0		0			
OTHER E&P WASTE	0		0			
specify:						
Was spill/release completely c	ontained within berm	s or secondary cor	ıtainment?	NO	Was an Emergency Pit cons	structed? NO
Secondary containment, in any discharge from primary			onstruction	material,	must be sufficiently impervio	ous to contain
A Form 15 Pit Report shall be	e submitted within 3	80 calendar days a	after the co	nstructio	n of an emergency pit	
Impacted Media (Check all tha	ıt apply)	☐ Groundwate	er 🔲 S	Surface W	/ater 🔲 Dry Drainag	je Feature
Surface Area Impacted:	Length of Impact (f	eet):20			Width of Impact (feet):	30
De	epth of Impact (feet B	GS):		Dep	oth of Impact (inches BGS):	
How was extent determined?						
Excavation activities will be correlease area following excavat samples will be compared to the	ion activities for labor	atory analysis of B	TEX and TP	H (GRO/I	DRO). The analytical results	of the soil
Soil/Geology Description:	-					
Road base overlaying clay.						
Depth to Groundwater (feet BC	GS) 20	Numbe	r Water Well	s within 1	/2 mile radius: 2	
If less than 1 mile, distance in	feet to nearest W	ater Well46	0 None 🗏]	Surface Water580	None 🔲
	v	Vetlands	None 🛱	Īi	Springs	None 🔀
	ı	_ivestock	None 🔀	Ī	Occupied Building	None 🔀
Additional Spill Details Not Pro	vided Above:					

	COI	RRECTIVE ACTIONS		
#1 Supplemental Report Date:	03/03/2017			
Cause of Spill (Check all that apply)	▼ Human Error	Equipment Failure	Historical-Unknown	
	Other (specify)			
escribe Incident & Root Cause (inclu	de specific equipment	and point of failure)		
operation to have a JSA signed. The	e hot oil truck operator to a 3-inch hose on the	and safety tech then notic ne back of the truck and 3	it oil truck operator shut down the loa ed oil coming out of the truck. The ve obl of oil ran out in to a snow melt pur ow loading protocols.	hicle
escribe measures taken to prevent t	he problem(s) from red	occurring;		
The hot oil truck operator was sent	home and the incident	was reported to the hot oil	trucking company's management.	2
olume of Soil Excavated (cubic yards	s):			PR
isposition of Excavated Soil (attach o	documentation)	Offsite Disposal	Onsite Treatment	0
		Other (specify)		
olume of Impacted Ground Water Re	moved (bbls):	***************************************		0.
olume of Impacted Surface Water Re	emoved (bbls):			ည်
	REQU	EST FOR CLOSURE		
	osed when impacts I		when further investigation and co	rrective
nctions will take place under an ap	osed when impacts I proved Form 27.		when further investigation and co	rrective
Basis for Closure: Corrective	osed when impacts I proved Form 27.	nave been remediated or ocumentation attached)	when further investigation and co	rrective
Basis for Closure: Corrective Work proce	osed when impacts I oproved Form 27. Actions Completed (do	nave been remediated or ocumentation attached) ved Form 27	when further investigation and co	rrective
Basis for Closure: Corrective Work proce	osed when impacts I oproved Form 27. Actions Completed (de eeding under an appro	nave been remediated or ocumentation attached) ved Form 27	when further investigation and co	rrective
Basis for Closure: Corrective Work proce	osed when impacts I oproved Form 27. Actions Completed (de eeding under an appro	nave been remediated or ocumentation attached) ved Form 27	when further investigation and co	rrective
Basis for Closure: Corrective Work proce	osed when impacts I oproved Form 27. Actions Completed (de eeding under an appro emediation Project No	nave been remediated or ocumentation attached) ved Form 27		rrective
Basis for Closure: Corrective Work proce Form 27 R PERATOR COMMENTS:	osed when impacts I oproved Form 27. Actions Completed (de eeding under an appro emediation Project No	nave been remediated or ocumentation attached) ved Form 27		rrective
Basis for Closure: Corrective Work proce Form 27 R PERATOR COMMENTS: hereby certify all statements made in	osed when impacts Inproved Form 27. Actions Completed (defection and appropriate and appropriation Project Notes and appropriation Project Notes and appropriation are to the bound of this form are to the bound and appropriation are to the bound and appropriation are to the bound are the bound are the bound are the bound are the bound are the bound are the bound are the bound are the bound are the bound are the	nave been remediated or ocumentation attached) ved Form 27 :	correct, and complete. Dale Birdwell	
Basis for Closure: Corrective Work proce Form 27 R PERATOR COMMENTS: hereby certify all statements made in Signed: Title: Senior EH&S Specialist	osed when impacts Inproved Form 27. Actions Completed (defection and appropriate and appropriation Project Notes and appropriation Project Notes and appropriation are to the bound of this form are to the bound and appropriation are to the bound and appropriation are to the bound are the bound are the bound are the bound are the bound are the bound are the bound are the bound are the bound are the bound are the	nave been remediated or ocumentation attached) ved Form 27 : est of my knowledge true, Print Name:	correct, and complete. Dale Birdwell	

Att Doc Num Name 401224420 SPILL/RELEASE REPORT(SUPPLEMENTAL) 401224487 TOPOGRAPHIC MAP 401230902 FORM 19 SUBMITTED

Total Attach: 3 Files

General Comments

 User Group
 Comment
 Comment Date

 Agency
 Please submidt supplemental report including a map showing flow path of fluid.
 03/10/2017

Total: 1 comment(s)

State of Colorado Oil and Gas Conservation Commission



1120 Lincoln Street, Suite 801, Denver, Colorado 80203 Phone: (303) 894-2100 Fax: (303) 894-2109 401237190

Date Received: 03/20/2017

Document Number:

Spill report taken by: NEIDEL. KRIS

Spill/Release Point ID: 449745

SPILL/RELEASE REPORT (INITIAL)

This form is to be submitted by the party responsible for the oil and gas spill or release. Refer to COGCC Rule 906.b. for reporting requirements of spills or releases of E&P Waste or produced fluids. Submit a Site Investigation and Remediation Workplan (Form 27) when requested by the Director.

OPERATOR INFORMATON

Name of Operator	BONANZA CREEK ENERGY OPE	RATING CO	MPANY LLC	Operator	No:	8960		Phone Numbers
Address: 410 1	17TH STREET SUITE #1400						Phone:	(720) 4406100
City: DENVER		State:	СО	Zip:	80202		Mobile:	()_
Contact Person:	Brian Dodek			37			Email:	Bdodek@Bonanzacrk.c

	lni		RELEASE REP			
Initial Report Date: 03/20	/2017 [Date of Discovery:	03/20/2017	Spill Type:	Recen	t Sp il l
Spill/Release Point Location	ដ					
Locationof Spill/Release:	QTRQTR SW	SE SEC	2 TWP 9	N RNG 79V	V MERIDIA	
Latitude: 40.775832	Longitude: -	106.229146				-
'Municipality (if within muni-	cipal boundaries):		County:	JACKSON		28
Reference Location:						0
Facility Type: FLOWLINE		Facility/Location I	D No			
		No Existing Facili	ty or Location ID N	0.		
	X	Weli API No. (Onl	y if the reference f	acility is well)05	-057-06052	-
Fluid(s) Spilled/Released (pl	ease answer Yes	/No):				ω ;
Secondary containment, any discharge from prima Were Five (5) barrels or mo Estimated Total Spill Volume:	ery containment uni ere spilled?	til cleanup occurs. No as others for value	es	naterial, must be suff ted Condensate Spill	• •	ous to contain
Estimated Flow Back Flo		· ———		Produced Water Spill	_	>=1 and <5
Estimated Other E&P Was Specify:			- 20	ted Drilling Fluid Spill	–	0
Land Use:						
Current Land Use: NON-	-CROP LAND	Oth	er(Specify):			
Weather Condition: 50°, F	Partly Cloudy		<u> </u>			
Surface Owner: FEDE	ERAL	Oth	ner(Specify):			
Check if impacted or threate	ned by spill/Relea	ase (please answ	er Yes/No to all ti	nat apply):		
•	Residence/Occupie		Livestock	Public Byway	Surface Water	r Supply Area

Describe what is known about the spill/release event (what happened -- including how it was stopped, contained, and recovered):

During routine inspections, a flowline failed and released approximately 2 bbls of produced water and 2 bbls of oil to the ground, outside of containment. The released occurred 900 feet north of the McCallum Unit 74 wellhead and 30 feet south of a flowline manifold building. The well and flowline was immediately shut in to stop the release. Bonanza Creek environmental personnel will assess the impact to the surface and remediation details will be submitted in a subsequent Form 19. The flowline will either be replaced or repaired and pressure tested prior to being put back into service.

List Agencies and Other Parties Notified:

OTHER NOTIFICATIONS

Date	Agency/Party	Contact	Phone	Response
3/20/2017	Jackson County	Kent Crowder	on file	notified of release
3/20/2017	COGCC	Kris Neidel	on file	notified of release via eForm 19
3/20/2017	BLM		on file	Notfied of release via WIS submittal

OPERATOR COMMENTS:

I hereby certify all statements made in this form are to the best of my knowledge true, correct, and complete. Signed: Print Name: Brian Dodek Title: Environmental Supervisor Date: 03/20/2017 Email: Bdodek@Bonanzack.com						·		
	I here!	I hereby certify all statements made in this form are to the best of my knowledge true, correct, and complete.						
Title: Environmental Supervisor Date: 03/20/2017 Email: Bdodek@Bonanzacrk.com	Signe	d:	1 P	Pri	int Name:	Brian Dodek		
	Title:	Environmental Supervisor	Date:	03/20/2017	Email:	Bdodek@Bonanzacrk.com		

COA Type	<u>Description</u>
	Demonstration that soil concentrations are below COGCC table 910-1 should be provided prior to "request for closure".
	Operator should provide demonstration with flowline rule, 1101.e.upon request for closure.

Attachment Check List

Att Doc Num	<u>Name</u>
401237190	SPILL/RELEASE REPORT(INITIAL)
401238339	TOPOGRAPHIC MAP
401239703	FORM 19 SUBMITTED

Total Attach: 3 Files

General Comments

User Group	Comment	Comment Date
		Stamp Upon Approval

Total: 0 comment(s)

State of Colorado Oil and Gas Conservation Commission

DNR CO

1120 Lincoln Street, Suite 801, Denver, Colorado 80203 Phone: (303) 894-2100 Fax: (303) 894-2109

SPILL/RELEASE REPORT (SUPPLEMENTAL)

This form is to be submitted by the party responsible for the oil and gas spill or release. Refer to COGCC Rule 906.b. for reporting requirements of spills or releases of E&P Waste or produced fluids. Submit a Site Investigation and Remediation Workplan (Form 27) when requested by the Director.

ı	Document Number:
	401241313
	Date Received:
	03/24/2017
ſ	Spill report taken by:
l	NEIDEL. KRIS
	Spill/Release Point ID:
1	449745

OPERATOR INFORMATON

Name of Operator: BO	DNANZA CREEK ENERGY OPER	ATING COMPANY LL	C Operator No:	8960	<u>.</u>	Phone Numb	ers	
Address: 410 17TH	STREET SUITE #1400				Phone:	(720) 44061	100	
City: DENVER	•	State: CO	Zip: 802	02	Mobile:			
	an Dodek				Email:	Bdodek@be	onanza	crk.c
	IN	ITIAL SPILL/RE	LEASE REPORT					
	Initial	Spill/Release Repo	ort Doc# 40123719	90				
Initial Report Date:	03/20/2017 Date	of Discovery:	03/20/2017	Spill Ty	pe:	Recent Spi	I	
Spill/Release Point Loc	cation:							
Locationof Spill/Relea	ase: QTRQTR SWSE	SEC 2	TWP 9N	RNG	79W	MERIDIAN	6	
Latitude: 40.775832	2 Longitude: -106	229146					2	0 (0)
'Municipality (if within	municipal boundaries):		County: JACKS	SON			017	
Reference Location:							APR	
Facility Type: FLOWL	.INE 🔲 Fac	ility/Location ID No	o				_	MO
	□ No	Existing Facility or	Location ID No.				0	- C
	⊠ We	ll API No. (Only if t	he reference facility	is well)	05-057-0	60 52	7	0.5
Fluid(s) Spilled/Releas	ed (please answer Yes/No):					0	0
Was one (1) barrel or	more spilled outside of bern	is or secondary co	ntainment?	Yes			-	
	ment, including walls & flo e primary containment until cl		onstruction materi	al, must be	sufficiently	impervious to	o conta	in [©]
Were Five (5) barrels	or more spilled?	10						
Estimated Total Spill Vo	olume: use same ranges as c	thers for values						
Estin	nated Oil Spill Volume(bbl): _	>=1 and <5	Estimated Co	ondensate S	Spill Volume	e(bbl):	0	
Estimated Flow Ba	ack Fluid Spill Volume(bbl): _	0	Estimated Produc	ced Water 9	Spill Volume	e(bbl):	and <	5
Estimated Other E&	P Waste Spill Volume(bbl):	0	Estimated Dr	Iling Fluid S	Spill Volume	e(bbl):	0	
Specify:								
Land Use:								
Current Land Use:	NON-CROP LAND	Other(S	pecify):		2-1-			
Weather Condition:	50°, Partly Cloudy							
Surface Owner:	FEDERAL	Other(S	Specify):					
Check if impacted or th	hreatened by spill/Release	(please answer Y	es/No to all that ap	ply):				
Waters of the State	Residence/Occupied S	structure 🔲 Liv	estock Pub	lic Byway [Surfa	ce Water Sup	ply Are	a
As defined in COG	CC 100-Series Rules							

Describe what is known about the spill/release event (what happened - including how it was stopped, contained, and recovered): During routine inspections, a flowline failed and released approximately 2 bbls of produced water and 2 bbls of oil to the ground. outside of containment. The released occurred 900 feet north of the McCallum Unit 74 wellhead and 30 feet south of a flowline manifold building. The well and flowline was immediately shut in to stop the release. Bonanza Creek environmental personnel will assess the impact to the surface and remediation details will be submitted in a subsequent Form 19. The flowline will either be replaced or repaired and pressure tested prior to being put back into service. List Agencies and Other Parties Notified: OTHER NOTIFICATIONS Date Agency/Party Contact Response Phone 3/20/2017 Jackson County Kent Crowder --on file notified of release 3/20/2017 Kris Neidel COGCC --on file notified of release via eForm 19 3/20/2017 BLM -on file Notfied of release via WIS submittal SPILL/RELEASE DETAIL REPORTS #1 Supplemental Report Date: 03/23/2017 **FLUIDS** BBL's SPILLED **BBL's RECOVERED** Unknown 2 OIL CONDENSATE 0 0 PRODUCED WATER 2 180 0 **DRILLING FLUID** 0 0 0 FLOW BACK FLUID OTHER E&P WASTE 0 611 specify: Was spill/release completely contained within berms or secondary containment? NO Was an Emergency Pit constructed? NO Secondary containment, including walls & floor regardless of construction material, must be sufficiently impervious to contain any discharge from primary containment until cleanup occurs. A Form 15 Pit Report shall be submitted within 30 calendar days after the construction of an emergency pit Impacted Media (Check all that apply) X Soil ■ Groundwater Surface Water Dry Drainage Feature Surface Area Impacted: Length of Impact (feet): Width of Impact (feet): Depth of Impact (feet BGS): 6 Depth of impact (inches BGS): How was extent determined? The extent was determined through visual observation. Soil/Geology Description: Bosler Sandy Loam Depth to Groundwater (feet BGS) 25 Number Water Wells within 1/2 mile radius: 18 If less than 1 mile, distance in feet to nearest Water Well 1713 None Surface Water None X Wetlands None 🔀 Springs None X

Livestock None X

Additional Spill Details Not Provided Above:

Occupied Building 1558 None

The release had limited surface impacts. The total depth provided was based on the estimated depth of the flowline. Locates have been called and we will conduct assessment after locates clear. With the current storm there is now snow cover at the release site. The flowline has been shut in and an earthen berm has been constructed around the impacted area to prevent any runoff. A roustabout crew has been contacted and the line and impacted soil will be addressed as soon as possible.

		RI	EQUEST FOR CL	OSURE	
Spill/Release Re actions will take	eports should be cl place under an ap	osed when impa proved Form 27	cts have been rem	ediated or v	when further investigation and corrective
Basis for Closure	: Corrective	Actions Complete	d (documentation a	ttached)	
	Work proce	eeding under an a	pproved Form 27		
	Form 27 R	emediation Projec	t No:	_	
OPERATOR CO	MMENTS:			n 10	
I hereby certify all	statements made in	this form are to t	he best of my know	ledge true, c	orrect, and complete.
Signed:			Pri	nt Name:	Brian Dodek
Title: Environme	ental Supervisor	Date:	03/24/2017	Email:	Bdodek@bonanzacrk.com
COA Type	2	escription			
		Atta	chment Chec	k List	
Att Doc Num	<u>Name</u>				
401241313	SPILL/RELEAS	SE REPORT(SI	IPPLEMENTAL)		

Total Attach: 3 Files

SITE MAP

FORM 19 SUBMITTED

401241734

401245447

General Comments

User Group	Comment	Comment Date
Environmental	Thanks for the response to previous COA's.	03/28/2017

Total: 1 comment(s)

22			
4			
		3	
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Exhibit 3

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	5		

United States Department of the Interior Bureau of Land Management Colorado State Office Glenwood Springs Field office

Roan Plateau Proposed Resource Management Plan Amendment and Final Environmental Impact Statement

Recommended by:

Jamie E. Connell Field Manager

Approved by:

Sally Wisely

State Director

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CHAPTER 2 • ALTERNATIVES

- Reduce the footprint of roads to the smallest safe standard.
- Implement dust suppression to minimize impacts to air, water, vegetation, and wildlife.
- Use appropriate color, shape, size, and location of surface facilities to reduce visual impacts.
- Install low-emission engines at compressor facilities to reduce air quality impacts.
- Use centralized or automated facilities to reduce the length and frequency of travel.
- Collocate utilities in common corridors and align them along roadways to reduce habitat loss and fragmentation.
- Incorporate powerline and pole or tower designs to minimize the risk of raptor electrocution.

In addition to these generally applicable measures, BLM may require BMPs intended for specific resources and situations. Examples include requirements to:

- Use culverts at stream crossings (culverts would have to be sized to avoid creating a barrier to alongstream movement of aquatic species or impede runoff conveyance of the channel).
- Use gravel or other surface material on roads, or use other dust-suppression techniques for the abatement of particulate emissions.
- Use protective fencing to exclude livestock from sensitive areas or areas being revegetated.
- Use biodegradable erosion blankets to stabilize disturbed soil and enhance revegetation.
- Seed with native species.
- Include native shrubs in reclamation seed mixes.
- Plant containerized shrubs during reclamation.

Where appropriate, these or other BMPs (Appendix I) would be specified at the time of permitting of oil and gas drilling or related operations (as COAs) or of other activities (e.g., range improvements, road reclamation, etc.). For oil and gas development, the potential for these requirements may be specified in the lease documents as LNs.

2.3 PROPOSED PLAN

This section summarizes the Proposed Plan resulting from BLM's response to public input and the Consultation and Coordination process. Although the term "Proposed Plan" is used throughout this Proposed Plan/Final EIS, it is more correctly referred to as the "Proposed Resource Management Plan Amendment." The term Proposed Plan is used as a type of shorthand and to avoid confusion with the Preferred Alternative (Alternative III) of the Draft RMPA/EIS

In developing the Proposed Plan, BLM's intent was to increase the amount of environmental protection compared to the Preferred Alternative of the Draft RMPA/EIS while accommodating a comparable level of development of the underlying natural gas resource. Many of the specifics of the Proposed Plan incorporate revisions and refinements arising from the "Consultation and Coordination" process with State, county, and local governmental "Cooperating Agencies," following the public comment period for the Draft RMPA/EIS. The Consultation and Coordination process is described in Chapter 6.

Table 2-1 provides a detailed comparison of the resource and management components of the Proposed Plan in comparison to the No Action and Preferred Alternatives. Management of ACECs and the Parachute Creek WMA are summarized in Tables 2-2 and 2-3, respectively. Table 4-1 in Chapter 4 summarizes the level of oil and gas development expected, based on land availability and resource

Emphasis on Phased and Clustered Development

An important aspect of the Proposed RMP Amendment is the incorporation of a requirement atop the plateau, and management emphasis below the rim, for phased and/or clustered oil and gas development, including extensive use of directional drilling to reduce surface disturbance. These requirements resulted from (1) comments by the public and Cooperating Agencies on the Draft RMPA/EIS that these measures could reduce surface disturbance, particularly in the more sensitive habitats atop the plateau, while allowing similar or greater recovery of oil and gas; and (2) experience of oil and gas operators in the region in both reducing the impacts and increasing the efficiency of drilling operations through greater use of multi-well pads and directional drilling.

During the Cooperating Agency process, the CDNR—which includes such agencies as the CDOW, CGS, Colorado Division of Parks, and COGCC—proposed a conceptual framework for implementing phased and clustered oil and gas development atop the plateau. The CDNR concept, which was viewed favorably by other participants in the Cooperating Agency process, was adopted and incorporated by BLM as a basic component of the Proposed Plan. Use of an undivided unit was intended to facilitate orderly development of the fluid mineral resource beneath the top of the plateau as a means of optimizing recovery of that resource while minimizing impacts to sensitive ecological and hydrological resources and encouraging rapid and effective reclamation. Major aspects of its adoption are as follows:

- Development Considerations. The maximum size of BLM oil and gas leases is 2,560 acres. The upper plateau area, with nearly 35,000 acres available for leasing, could contain at least 14 separate leases with an unknown number of separate operators. With separate leases there would be an incentive for each operator to maximize its own oil and gas production; simultaneous drilling operations across widely dispersed portions of the plateau, and redundant facilities for each operator. Economies of scale could more easily be met by distributing both costs and revenues associated with this environmentally sensitive area across the top of the plateau as a whole; while at the same time promoting development of all economically recoverable oil and gas resources within the Planning Area, rather that just those portions with the highest economic return
- Federal Unit atop the Plateau. A lease stipulation would require participation in a Federal Unit for all leases issued on top of the plateau. In an undivided unit, all lessees have an interest in oil and gas production atop the plateau and share proportionately in the costs and revenues of oil and gas development. By eliminating competition among lessees, the Federal Unit would allow for more orderly development of the entire area and for consolidation of facilities and infrastructure by a single operator.
- Existing Leases. Because the area below the rim already has oil and gas development underway in the production area and adjacent private lands, new leasing within this portion of the Planning Area would not be subject to a stipulation requiring participation in a unit with undivided interest, but instead would continue to be leased as individual tracts and may be unitized on a voluntary basis or through forced pooling orders. Mandatory requirements for developing the top of the plateau in an environmentally sensitive manner may encourage use of many of the same approaches for areas below the cliffs.
- <u>Phased Development.</u> Requiring 100 percent participation in a Federal Unit would allow the top of the plateau to be developed in a phased or staged progression. Phased development would be achieved through sequencing the exploration and development operations conducted within six geographic areas, referred to as phased development areas (Figure 2-1). These six areas would be defined by the tops of ridges between the major drainages atop the plateau. Drilling and production would be allowed in only one geographic area at a time, providing an incentive to ensure that drilling

CHAPTER 2 • ALTERNATIVES

is complete prior to moving to the next area. Exploratory wells may be drilled in other areas as needed to plan future drilling operations.

The six phased developed areas may be refined by BLM in collaboration with CDNR. Development in any new area would be predicated on substantial completion of diligent drilling in the preceding area sufficient to recover the oil and gas resource and satisfactory attainment of mitigation and interim reclamation requirements. For purposes of this document, it is assumed that exploration and development would occur first in the area immediately north of the Roan Cliffs, since this is the area closest in terms of horizontal distance to existing oil and gas development below the cliffs. [Generally, the closer an area is to a known reserve, the more likely it is to have the same conditions in the hydrocarbon-bearing strata.] Only when the first development area is nearing full development would BLM allow the operator to move to the next development area. Thus, impacts related to direct habitat loss, vehicular traffic, drill rig operation, and other sources would be limited to only one portion of the upper plateau at any given time.

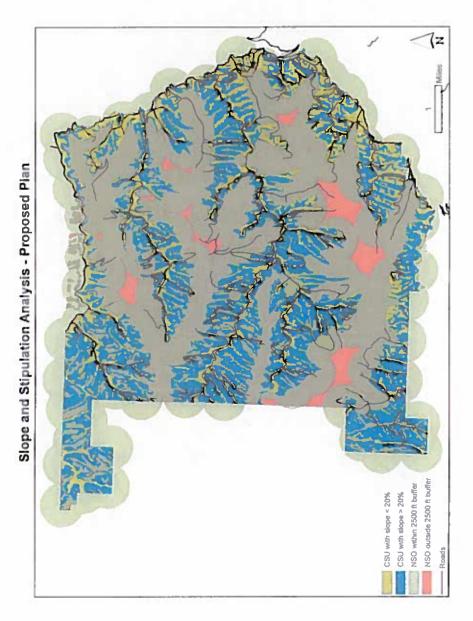
The concept of phased and clustered development was discussed in the Draft RMPA/EIS. The Proposed Plan further refines this concept to as a way to ensure orderly development across the top of the plateau. Of particular importance in developing a phased approach to development was the desire to reduce impacts to wildlife by leaving large portions of the plateau relatively unaffected until reclamation had been completed in previously disturbed areas.

Clustered Development and Directional Drilling. Another component of the Proposed Plan is the requirement for using directional drilling and multiple well pads on top of the plateau to reduce the surface disturbance footprint and landscape fragmentation. Discussions with CDNR and industry representatives indicate that, with existing proven technology, directionally drilled wells could "reach" a horizontal distance of 2,500 feet to access hydrocarbon resources. The Proposed Plan requires that pads atop the plateau be separated by a minimum distance of 2,640 feet (0.5 mile) within areas where disturbance would be allowed. With 10-acre downhole spacing for Mesaverde formation wells and 160-acre spacing for Wasatch wells, this would result in sixteen Mesaverde wells and one or more Wasatch wells per pad. Some minor variation to the minimum separation distance could be authorized.

An additional component of clustered development as proposed by CDNR is to focus development along ridgetops. The top of the plateau is characterized by relatively flat ridges separated by relatively steep stream valleys. Focusing development on ridgetops would reduce impacts to the ecologically and hydrologically sensitive drainages. Through Geographic Information System (GIS) analysis, areas of drainage divides with slopes of 20 percent or less were found to be a reasonable basis for defining "ridgetops."

GIS was then used to systematically project hypothetical locations of pads meeting the criteria of a minimum separation of 0.5 mile, in non-NGD/NSO areas, and with slopes of 20 percent or less. By applying a 2,500-foot horizontal reach for directional drilling to the hypothetical pad locations, GIS analysis indicates that more than 95 percent of the area of hydrocarbon-bearing formations beneath the upper plateau could be accessed at full-field development. This includes more than 90 percent in areas with an NGD/NSO restriction. Since the NGD/NSO areas atop the plateau under the Proposed Plan are relatively narrow features (associated with the stream drainage pattern) (Map 2), pads located near the edges of the NGD/NSOs would allow directional drilling to access the entire underlying area in most cases. If drilling technology develops to allow a greater horizontal reach, recovery beneath the NGD/NSO areas could be higher, potentially allowing surface density to be reduced further.

Clustered development would not only reduce surface impacts due to fewer pads, it would also reduce the need for new roads and vehicular travel associated with operation and maintenance of the wells.



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